



**INSTITUTE OF PUBLIC HEALTH**  
**COLLEGE OF MEDICINE AND HEALTH SCIENCES**  
**UNIVERSITY OF GONDAR**

**RISKY SEXUAL BEHAVIOR TO HIV INFECTION AND ASSOCIATED  
FACTORS AMONG HIGH SCHOOL STUDENTS IN GONDAR CITY  
ADMINISTRATION, NORTHWEST ETHIOPIA**

**A THESIS SUBMITTED TO THE INSTITUTE OF PUBLIC HEALTH,  
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**May, 2015**

**Gondar, Ethiopia**

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**Risky sexual behavior to HIV infection and associated factors among  
high school students in Gondar city administration, northwest  
Ethiopia, 2015**

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**May, 2015**

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## Acronyms

<b>BSS</b>	Behavioral Surveillance Survey
<b>DHS</b>	Demographic Health Survey
<b>HAPCO</b>	HIV/ AIDS Prevention and Control Office
<b>HIV/AIDS</b>	Human Immune Virus/Acquired Immuno-Deficiency Syndrome
<b>IEC</b>	Information Education and Communication
<b>STDs</b>	Sexually Transmitted Diseases
<b>STI</b>	Sexually Transmitted Infections
<b>SRH</b>	Sexual and Reproductive Health
<b>UNFPA</b>	United Nation Fund for Population Agency
<b>WHO</b>	World Health Organization
<b>YRBSS</b>	Youth risk Behavior Surveillance System

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## **Abstract**

**Introduction:** According to WHO; youth are young people within 15-24 years old. Studies reported that more than half of all new HIV infections occur in people between the ages of 15 and 24 years. Identifying risky sexual behaviors and associated factors among this group of youth is critical to design sound intervention. However limited studies acknowledge the differential vulnerability of high school students for risky sexual behavior in Ethiopia. Therefore this study aims to investigate risky sexual behaviors and associated factors among high school students in Gondar city administration.

**Objective:** To assess the prevalence of risky sexual behaviors and associated factors among high school students in Gondar city administration.

**Methods:** Institution based quantitative cross-sectional study was conducted from March 23/2015 to march 26/ 2015 among high school students in Gondar city administration. Multistage sampling technique was employed to recruit study participants and Data was collected using structured self-administered questionnaire, and entered using epiinfo version 7 and imported to SPSS version 21 for analysis. Descriptive statistics like frequency, proportion and mean were computed to describe important variables in relation to the outcome variable, and Binary and multivariable logistic regression were used to identify independent predictors

**Results:** The overall prevalence of risky sexual behavior was 12.8%%. Ever used alcohol ((AOR, 3.53 95% CI (1.73-7.19)), had no parental monitor (AOR, 12.21 95% CI (6.55-22.78), watching pornographic film (AOR, 2.24 95% CI (1.15-4.35), had parental discussion on SRH issues (AOR, 2.57 95% CI (1.36-4.85) and peer pressure (AOR, 2.50, 95%CI (1.20-5.21), were factors which significantly increases the odds of risky sexual behavior among youth

**Conclusion and recommendations:** Risky sexual behaviors among high school students in Gondar city administration was very high and worrisome so that a concerted effort is needed from parents, school, health facility and policy makers to bring accepting attitude for condom use.

**Key words:** *risky sexual behavior, high school students, associated factors, northwest Ethiopia*

## **1. Introduction**

### **1.1 statement of the problem**

According to world health organization (WHO) adolescents cover the age range of 10-19 years, while youth are defined as people belonging to the age group of 15-24 years and young people covers the age of 10-24 years. Young age is critical development period when many youth begin to define and clarify their sexual values and start to experiment with sexual behavior (1)

The world today is experiencing a rapid increase in the number of young people. One fifth of world population is youth and young adults with more than four fifth in developing countries(2).

Risky sexual behavior is any behavior which increases the probability of negative health consequences associated with sexual contact including HIV/AIDS and other Sexually transmitted disease (STDs), abortion, unplanned pregnancy and others(3)

The common risky sexual behavior in young age group includes unprotected sexual intercourse, multiple sexual partner, early sexual initiation , casual sex ,engaging in sex with older partner and commercial sex worker which results in ill health in young people(4).

The trend in sexual activity of adolescents at younger age increase in the world. In many countries the majority of young people are sexually active before age 20. And It is stated that less than half of all sexually active youth uses condom (5)

As a result, globally one-third of the 340 million new STIs cases occur per year in people under 25 years of age. Each year, more than one in every 20 adolescents contracts a curable STI. Studies reported that more than half of all new HIV infections occur in people between the ages of 15 and 24 years(6, 7)

These health problems are prevalent in sub-Saharan Africa where condom is hardly used and many young people experience multiple sexual partnership(8). Risky behaviors established in youth often extend into adulthood, and hence making intervention at a younger age is imperative to prevent chronic risk behaviors.



Sub-Saharan Africa with estimated 22.9 million people living with HIV in 2010 is the most affected part of the world. Half of new infection in this region in the year 2009 occurred among those ages 15-24(9).

In Ethiopia comprising 30% of the population, young people in the age range of 15-24, represent a huge segment of potentially vulnerable population and an increasing number of them are involved in unsafe sexual practices and hence face undesired health outcomes including HIV/AIDS(10)

According to 2009 antenatal care sentinel surveillance (ANC), the prevalence of HIV/AIDS among young people of age 15–24 years was 2.6%(11) which is quite large figure.

High schools are institutions where many youth from different elementary schools joined and expand peer network which could affect sexual behavior either positively or negatively. Majority of students enrolled in high school are at mid adolescent level where sexual socialization, experimentation and identity building takes place. Identifying sexual behavior and associated factors is critical to design sound intervention for these groups.

However previous studies in Ethiopia are concentrated among university and college students and the existing limited literatures were tailored to examine role of single variable on sexual behavior of youth like parenting practices, peer influence, khat and substance abuse and living arrangement in a fragmented way; despite youth are nested in a context where many of the aforementioned factors interact. Furthermore most of these studies used to define risky sexual behavior in one or two sexual practices but risky sexual behavior is a composite of many sexual practices (12-14).

Therefore this study aims to investigate risky sexual behavior and associated factors among high school students in Gondar city administration; by considering variables in different dimension at a time and using possible sexual practices to measure over all risky sexual behavior.

## **1.2 Literature review**

### **1.2.1 Risky sexual behavior**

Risky sexual behavior is iterated as practicing either of (early sexual initiation, unprotected sexual intercourse, multiple sexual partner, sex with non-regular sexual partner or casual sex) (15-17)

In Colombia one out of three school going adolescent had risky sexual behavior to HIV infection (18) and a study among school going youth in Tnzania indicate 41.1% of respondents had not used condom at their recent sex and were at risk of HIV infection(19)

The overall risky sexual behavior among wolayita (boditti high school) and Humera school youth was 17.9% (CI 14.7%-21.5%) and 13.7% with (95%CI, 10.6%-16.8%) respectively(15, 20). Another study in south west Ethiopia revealed 42.1% of sexually active school youth had had risky sexual behavior(14)

#### **1.2.11. Early sexual initiation**

Now a days early sexual initiation increases across the globe. Early debut was positively associated with risky behaviors, such as the number of sexual partner, drug and alcohol use and other antisocial behaviors later in life. In Brazil 22.9% (95%CI 26.4 – 31.2) adolescents experience sexual intercourse by age 14 year; while 7.8% girls and 7.2% of boys had sexual intercourse before their 14<sup>th</sup> birth day in Sweden(21, 22). Among Indian school adolescents 1.3% of girls and 6.3% of boys had early sexual contact; their average age at first sexual intercourse for girls and boys were 15.25 and 16.66 respectively(23)

In Africa early sexual initiation remained as a normative behavior for a long period of time. A study among South African school adolescent indicates 33.8% male and 21.3% female were sexually active before their eighteen while in Kenya 22.2% boys and 5% girls had sexual intercourse before their fifteen (24, 25).

Ethiopia a country where early marriage at the same time early sexual initiation is universal. Study done on school going adolescents in wolayta high school indicates the

mean age of sexual initiation was equal for boys and girls at  $16.6 \pm 2$  years on the other hand a study in western Ethiopia shows females have lower age at sexual initiation than boys ( $15 \pm 1.7$  Vs  $16.2 \pm 1.5$ ) years respectively (20, 26)

#### **1.2.12. Unprotected sex**

The non-use or inappropriate use of condoms can lead to infections by sexually transmitted diseases (STDs) and pregnancy (27, 28). Despite of this fact many adolescents are practicing unsafe sex. In Bhutan only (49.1%) of sexually experienced respondents (49.5% and 30.1% boys and girls respectively) use condom regularly. The left huge figure of adolescent is practicing unprotected sex. While in EL Salvador 70% of sexually active males and 66% of female adolescents did not use condom in their last sexual intercourse (29, 30).

Africa particularly sub-Saharan Africa is a region where condom utilization is low on the other hand multiple sexual partner is common among adolescents in the region. Study in South Africa revealed that only 44.8% of sexually experienced youth (47.2% boys and 41.9% girls) regularly used condom (25).

Findings of a study in Cameroon shows 18% of female and 25% of male adolescents use condom at last sexual intercourse and 25% of sexually active youth used condom regularly (16). In Ghana 51.5% of sexually active youth (53.8% and 49.7% boys and girls respectively) used condom regularly (31).

In Ethiopia` many studies show school youth are highly involved in unprotected sexual intercourse. A study at national level revealed 14.3% of sexually active youth (12.6% female and 16% male) experienced unprotected sexual intercourse (13). In Enemay (Gojam) district 52.1% female and 38.9% adolescent had unprotected sexual intercourse. Similarly in Jimma and Harar 11.2 % and one third of school adolescents did not use condom at their last sexual intercourse respectively (12, 14, 32).

#### **1.2.13. Multiple sexual partner**

Multiple sexual partnership is high-risk sexual behavior because of tendency to increase the risk of HIV transmission through sexual networks. A study in Cambodia shows

34.6% of school youth had two and more sexual partner over the same period of time of which 52.6% did not use condom at their last sexual contact(33)

In Africa multiple sexual partnership is common as studies in different countries assured. In Cameroon one girl out of six and nearly half(44%) of boys had two and more sexual partner at the same period of time, while 31% and 40% in school youth in Ghana and Nigeria respectively had multiple sexual partner at the same period(16, 31, 34).

in Ethiopia HIV/AIDS behavioral surveillance survey (BSS) shows 22.7% of school youth had multiple sexual partner, the study adds male students were more likely to have multiple sexual partner than female with 31.2% of males and 2.7% of females (35). And hence they are at increased risk of contracting and transmitting STD to their sexual partners. Another study in Ethiopia Enemay district indicates high proportion of both sexes experienced multiple sexual partner which is 54.1% (52.2% male and 64.4 % females) of sexually active youth(32). Similarly a study in Awi zone indicates high proportion of school are involved in sexual practice with more than one sexual partner with short period of time or concurrently, 63.3% males and 36.7% female had experience of sex with more than one sexual partner (36).

#### **1.2.14. Sex with non-regular sexual partner**

A high rate of sexual networking, particularly with non-permanent partners, is likely to expose participants to HIV/AIDS and other STDs. The types of sexual partners and the extent of condom use, indicate the probable exposure of the participants to HIV/AIDS. In Colombia 40% of school adolescents experienced sexual intercourse with individual they know little. while a study in Myanmar showed 27% of male and 3% female youth had practiced sex with non-regular sexual partner (18, 37).

A study in Nigeria indicates 20% of youth had had non-regular sexual relationship including with commercial sex workers such people are a bridge to transmit HIV/AIDS and other STDs from the high risk group to the general public(38). Similarly in Cameroon one out of eight girls(12%) and 36% of boys had multiple causal sexual partner during the same period of time(16).

In Ethiopia sexual encounter with non-regular sexual partner including with commercial sex workers is high like other African countries. A study in northwest Ethiopia show that 40.6% of male and 24.7 female youth had practiced sex with non-regular sexual partner(39).

### **1.2.2 Factors associated with risky sexual behavior**

Youth live in multiple social centers that shape their attitudes and behaviors including changes at the family, schools, peers and individual levels. All of these environments are interconnected in shaping how young people act and interact; and each can be a source of risk or protection to young people.

#### **1.2.21. Socio demographic and economic factors**

**Sex:** there is scientific evidence dictating sexual behavior varies by gender, a study in Malaysia indicates male school adolescent claimed to have multiple sexual partner as compared to female(28, 40).

Responsible sexual behavior is different across gender in Africa as shown in Nigeria and Cameroon male adolescents have higher risky sexual behavior than females(16, 41)

In Ethiopia many studies revealed male youth are more likely to involve in risky sexual behavior(15, 20, 42), where as in Harar it is found sex is not related to risky sexual behavior(12).

**Age:** different studies show age significantly affect sexual behavior. A study in Myanmar revealed female adolescents 18 years and older age more involved in risky sexual behavior than Youngers. Similarly in Cameroon and Ghana older age is positively associated with risky sexual behavior (16, 31, 37). On the other hand age is found not associated with risky sexual behavior of youth in South Africa (25)

In Ethiopia national study among youth revealed age is a significant factor for risky sexual behavior which explains the older the age of youth the higher risky sexual practice similarly a study among Boditti-Wolayita school youth indicates risky sexual practice increases with the age of youth. But a study in northwest Ethiopia show age is not associated with risky sexual behavior (13, 20, 39).

**Religious:** Greater religious involvement was associated with less sexual risk taking and greater self-efficacy and more positive attitude towards using condom(43).A study in Uganda and northwest Ethiopia show religious affiliation is not associated with risky sexual behavior for both male and female youth, on the other hand study in south west Ethiopia revealed religious affiliation is associated with risky sexual behavior, youth who had frequent or occasional visit to religious institution are less likely to engage in risky sexual behavior than who never visit (14, 44, 45).

**Maternal education:** a study done in Tehran revealed maternal education is correlated with premarital sexual activity of female students, daughters of educated women are at lower risk for premarital sex(46).where as a study in kingdom of Saudi Arabia indicate maternal education has no relation with sexual behavior of young men (47)

In Ethiopia a study in Jimma revealed youth whose parents were secondary and above were less likely to involve in risky sexual behavior as compared to other maternal education levels(2)

**Father's education status:** a study in Kingdom of Saudi Arabia revealed father education has significant relation with sexual behavior of young men(47)

A study in Ethiopia indicates youth from illiterate parents were at higher risk of risky sexual behavior as compared to youths whose parents were literate(32).

**Income :** a study in Tanzania show family income has significant association with sexual behavior of youth(19), where as in Ethiopia, Harar house hold income had no relation with risky sexual behavior(12).

#### **1.2.22. Individual factors**

**Alcohol use:** alcohol can affect the decision made by youth regarding sexuality and efficacy to use safety measures. Several studies find out the relationship between alcohol use and risky sexual behavior, a study in Bolivia and Tehran indicate alcohol consumption is positively correlated with risky sexual behavior among school youth, Alcohol consumption has positive association with risky sexual behavior among male adolescents in Spain. Similarly in Kenya alcohol consumption is positively associated with risky sexual behavior among male adolescents but not for females (48-51).

In Ethiopia, national study on youth revealed alcohol users had three fold increased practice of risky sexual behavior to their counter parts. In line with national finding study

in North West Ethiopia indicate alcohol intake is positively associated with risky sexual behavior(13, 39).on the contrary findings in Humera high school illustrate there is no association between alcohol intake and risky sexual behavior(15).

**Living arrangement:** The living situation of young people has a profound impact on their sexual behavior. Studies from Myanmar and Kingdom of Saudi Arabia revealed youth living away from parent are more likely to practice risky sexual behavior as compared to their counterpart. Similarly studies in Uganda and Tanzania indicates adolescents who live with both parents are less likely to engage in risky sexual behavior than who lives alone for both male and female (19, 37, 44, 47).

A study done in west Ethiopia and wolayita illustrates youth living with both biological parent were less likely to engage in risky sexual practices(20, 52). However a study in Ethiopia, Harar revealed living arrangement of youth did not show association with sexual behavior of youth(12)

**Substance use:** youth who chew khat frequently are more likely to engage in risky sexual behavior than those who never use khat(13, 39, 53).And it is associated with male gender(54). However other study in Ethiopia revealed no association between khat use and risky sexual behavior(15, 20)

**Exposure to porn video:** studies illustrate inconclusive finding on effect of porn video on sexual behavior. Finding from Saudi Arabia indicate watching porno graphic film increases the odds of risky sexual behavior among school youth(47). Similarly A Study done in Humera high school and Jimma high school indicate watching pornographic film increases engagement in risky sexual activity(15, 55). On the other hand a study done at the national level indicate watching pornographic video is not associated with risky sexual behavior(13).

**Academic performance:** study in Bolivia indicate academic performance among male student is positively associated with risky sexual behavior, while a study in Bahir Dar revealed academic performance is associated with risky sexual behavior among female students. Students with poor academic performance are more likely to practice risky sexual behavior(50, 53)

**Knowledge on HIV/AIDS and STDs:** awareness on HIV/AIDS transmission and prevention, STD signs and symptoms, complication is supposed to affect sexual behavior of adolescents. However a study in Ethiopia Enemay district indicate there is no relationship between knowledge on HIV/AIDS and risky sexual behavior; similarly a study in Bhutan knowledge on HIV/AIDS and STDs did not reduce risky sexual behavior (29, 32).

### **1.2.23. Peer influence**

Peer plays an important role in creating a sense of normative behavior. It can encourage youths to experiment a range of sexual behaviors, and doing so may lead to an increased risk of contracting sexually transmitted diseases, including HIV/AIDS. A study in Cameroon show male and female adolescents who had discussion on sexual issues with their peer are involved in risky sexual behavior which suggest peer influence on decision for sex. an other study in south Africa illustrates peer influence is associated with risky sexual behavior for male and female youth (16, 25).

In Ethiopia different literatures indicate sexually experienced close friend induce risky sexual behavior among adolescents (42, 52, 53)

### **1.2.24. Family factors**

Parents are a powerful influence in the lives of their children. When parents make a habit of knowing about their children what they are doing, who they are with, and where they are and setting clear expectations for behavior with regular check-ins to be sure these expectations are being met they can reduce their children' risks for pregnancy and other ill health effect behaviors.

**Frequency of parental communication:** study conducted in Malaysia revealed family communication regarding sexual and reproductive health with youth has no effect on risky sexual behavior among youth (56)

Communication regarding reproductive health and sexuality remained a taboo in many African countries. In South Africa only 26.6% of the boys and 37.1% of the girls reported easy communication with parents on sex related topics. The study adds adolescents



whose parents communicate with them about reproductive health and sex education are less likely to engage in risky sexual behaviors(25)

In Ethiopia literatures show inconclusive finding regarding the role of parental communication on sexual behavior of youth, a study done in western Ethiopia indicate parent adolescent communication reduce risky sexual behavior among youth. But a study in northwest Ethiopia Humera show parental communication regarding sexuality related topics is not associated with risky sexual behavior among school youth of both sexes(15, 52).

**Parental monitoring:** A wide range of studies carried out across the world indicate that strict parental monitoring is positively associated with reduced adolescent health risk, delayed intercourse, fewer sexual partners and consistent contraceptive use. A study in Salvador indicates that students reporting low parental monitoring were between 2 to 3.5 times more likely to report risk behaviors(57).

In Tanzania higher parental monitoring is associated with increased utilization of condom at last sexual contact among adolescent (19).

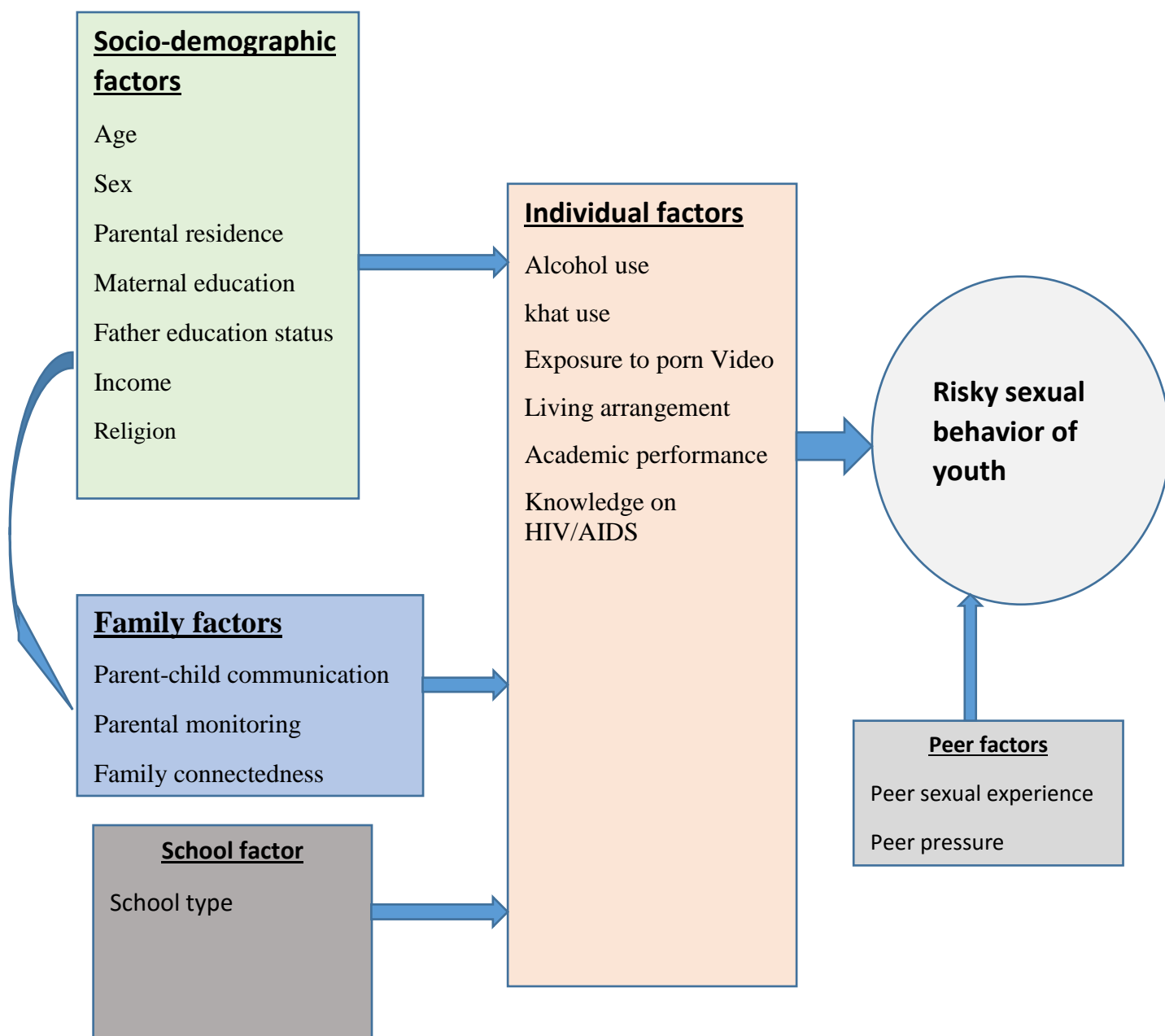
A study in Ethiopia, among school youth of west Gojam revealed parental monitoring had a positive effect in reducing risky sexual behavior among school youth. Similarly a study in west Ethiopia and Harara revealed Youths who reported that their parents always knows what they are doing when they are away from home and those youths who reported that their parents knows every activity and interest of their close friends were less likely to involve in risky sexual practice(12, 52, 58).

**Family connectedness:** finding from western Ethiopia show perceived family connectedness among youth is associated with risky sexual behavior of youth(52), similarly a study in North West Ethiopia revealed family connectedness has relation with sexual behavior of youth. Students with high perceived parental connectedness are less likely to have sex and multiple sexual partner(58).

#### **1.2.25. School factors**

School, the institution outside the family that plays the most important role in the socialization of the young, has the potential to influence directly students' aspirations, motivations and risk taking behaviors(51)

**School type:** private owned schools and public school are considered to have different effect on adolescent reproductive and sexual health. A study in Spain revealed students at public funding school are at increased risk of risky sexual behavior as compared to students from private owned school. Similarly In Brazil students from public schools are more likely to engage in risky sexual behavior than students from private owned schools(22, 48).



***Figure 1** Conceptual frame work for risky sexual behaviors and associated factors among high school students in Gondar city administration, northwest Ethiopia, 2015 (developed from reviewed literatures by investigator)*

### **1.3. Justification of the study**

Contemporary threats to adolescents' health are primarily the consequence of risk behaviors and their related adverse outcomes. Thus identifying factors associated with adolescents' risk behaviors is crucial for developing sound prevention strategies.

Regardless of concerted efforts to meet universal access to sexual and reproductive health (SRH) services, many adolescents are still increasingly affected by sexually transmitted infection (STI) including HIV/AIDS

The incidence and prevalence of HIV/AIDS is higher among young population as compared to adults. This is probably because of their higher tendency to frequently engage in unsafe sexual practices disproportionately to adult.

Due to the fact that no general approach to sexual-health promotion will work for every segment of the population and no single-component intervention will work anywhere, STI/HIV/AIDS related interventions need to account the heterogeneity nature of youth in many aspects. However sexual and reproductive health interventions for youth in Ethiopia is generic which lacks evidence to make it need based for each unique youth characteristics.

Therefore the study finding provides prevalence of risky sexual behavior and constellations of factors affecting sexual behavior among school youth for stake holders which in turn used to design need based interventions and strategies for reduction of

risky sexual behavior to contract HIV/AIDS among the growing population at which country will rely on for future.

## **2. Objectives**

### **2.1 General objective**

- To assess prevalence of risky sexual behaviors and associated factors among high schools students in Gondar city administration, northwest Ethiopia, 2015

### **2.2 Specific objectives**

- To assess prevalence of risky sexual behaviors among high school students in Gondar city administration, northwest Ethiopia, 2015
- To identify associated factors of risky sexual behaviors among high school students in Gondar city administration, northwest Ethiopia, 2015

### **3. Methods and materials**

#### **3.1 Study area and period**

##### **3.1.1 Study area**

The study was conducted in Gondar city administration high schools, Gondar city is one of historical and tourist destination place in Ethiopia. It is found 747 km to Addis Ababa and 178km from Bahir Dar to northwest Ethiopia.

The city has 315,857 total population, with 151780 male and 164077 female. From these population the adolescent population accounts 107391 (34% of the total) (59)

The city Administration has 8 public and 5 private (9-10<sup>th</sup>) high schools teaching 11205 (5280 male and 5925 female) and 1348(571 male and 777 female) students respectively. Totally 12553 grade 9<sup>th</sup> -10<sup>th</sup> students are at school in the city administration. Presence of different public and private colleges, and one university makes the city to home large number of youth population, this creates an opportunity for young people to interact in one or another way. In addition the presence of many night clubs and commercial sex workers in the city administration put the youth at increased risk of sexual behavior. One public specialized teaching hospital, one general private hospital, eight public health centers, nine higher private clinics, seventeen primary clinics and one youth center are found in the city administration.

##### **3.1.2 Study period**

The study was conducted from March 23/2015 to march 26/2015 among high school students in Gondar city Administration, northwest Ethiopia

### **3.2 Study design**

Institution based quantitative cross-sectional study was conducted on risky sexual behaviors and associated factors among high school students in Gondar city administration.

### **3.3 Source and Study population**

#### **3.3.1 Source population**

The source population was all grade (9<sup>th</sup> -10<sup>th</sup>) high school students in Gondar city Administration

#### **3.3.2 Study population**

The study population were all grade (9<sup>th</sup> -10<sup>th</sup>) high school students who attend school at the time of survey in Gondar city Administration.

#### **Inclusion criteria**

All registered grade 9<sup>th</sup> -10<sup>th</sup> student aged 15-24 in 2015 were included in the study

#### **Exclusion criteria**

Students who were transferred from other places to the study area after half semester in 2015 were excluded from the study.

### **3.4 Sample size determination**

Sample size was determined using EPIINFO version 7 by taking the following assumptions

Magnitude of risky sexual behavior among school youth taken as 61.5% (20)

Probability of committing type I error is 5% (95% confidence level) and maximum tolerable error is considered to be 5% and design effect 1.5%

Sample size obtained was 546. By considering 10% non-response rate  $546 + 55 = 601$  sample students were required.

Since the difference between schools is considered to be low as a result of proximity in location and character design effect was reduced and taken as 1.5

Sample size determination was also made for the second objective by using major factors determining risky sexual behavior to HIV infection using EPIINFO 7. Assumptions and sample size obtained is summarized in table below.

<b>Factor</b>	<b>Outcome in unexposed (%)</b>	<b>Outcome on exposed (%)</b>	<b>Confidence level and power assumption</b>	<b>Odds ratio</b>	<b>Sample size</b>
Frequency of alcohol intake	10.2(13)	46.5	(95%,80)	3.05	<b>366</b>
Porn Video exposure	69.9(2)	30.1	(95%,80)	4.7	<b>109</b>
Living arrangement	16.9(20)	24.6	(95%,80)	<b>2</b>	<b>686</b>

The largest of all was considered as final sample size. So that sample determined with the factor living arrangement was large enough to address all variables of the study and taken as final sample size which was **686**

### **3.5 sampling technique and procedure**

#### **3.5.1 Sampling technique**

Multi stage sampling technique was used to select study participants in the selected high schools.

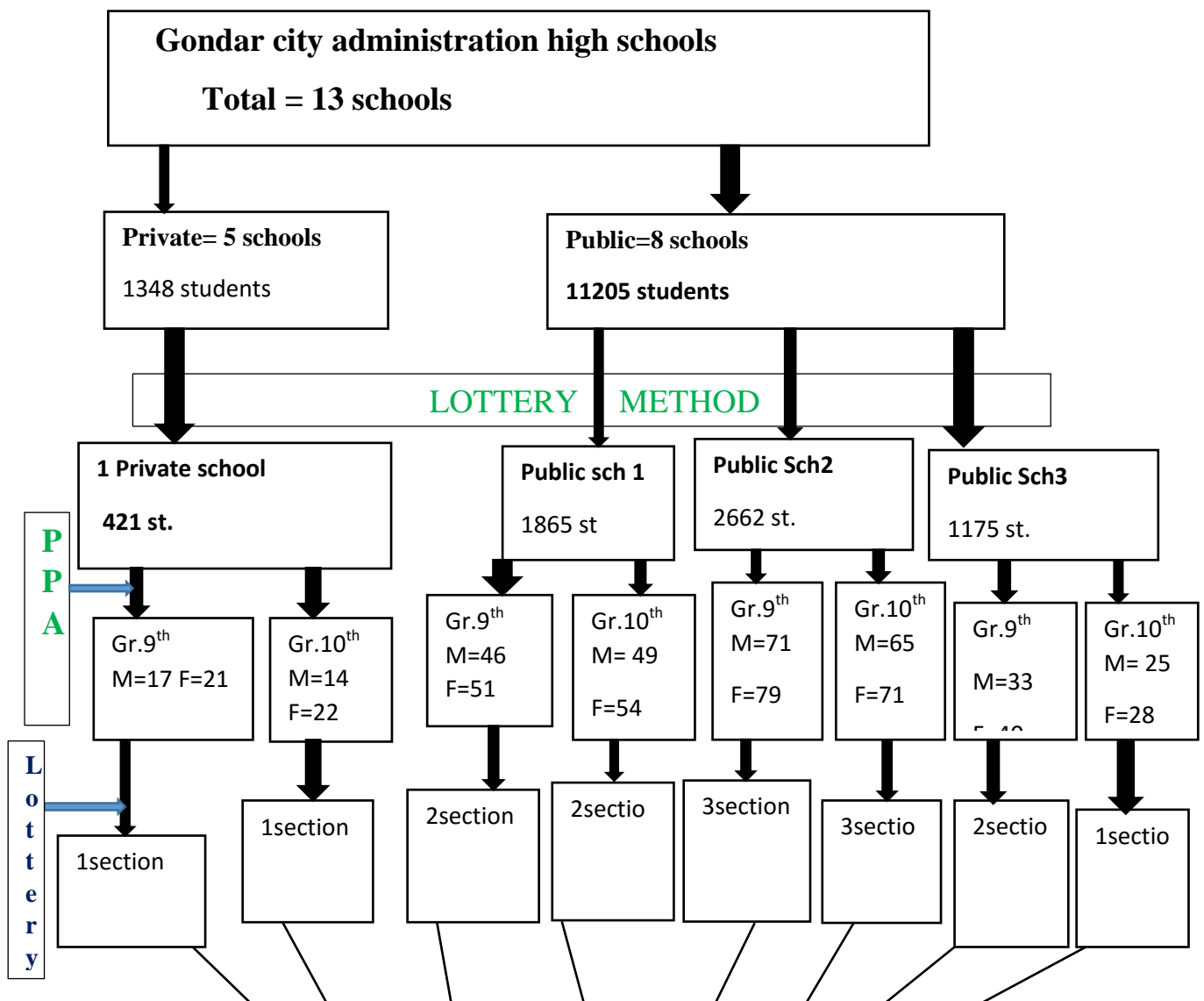
#### **3.5.2 Sampling procedure**

First 3 high schools from 8 public high schools; and 1 high school from 5 private high schools were selected. Then sample size was distributed proportional to student size in each school.

Second By considering Students from the same grade in one school are homogeneous across sections, one section from each grade in private school, two sections from each grade from two public schools and three sections from each grade in one public school were selected

Finally, the whole eligible students in the selected clusters (sections) were used for data collection. Data was collected during regular school time simultaneously at one

school. Separate place for male and female were used. In schools where no empty class found separate sitting rows used for male and female in the class room.





**Figure 2.** *Schematic presentation of sampling procedure for a study on risky sexual behaviors and associated factors among high school students in Gondar city administration, northwest Ethiopia, 2015*

### **3.6. Operational definition**

**High school:** school teaching 9-10<sup>th</sup> grade students

**Risky sexual behavior:** practicing either of (non or inconsistent use of condom, having two or more sexual partner in the last 6 month, sexual intercourse with commercial sex worker or sexual intercourse with individual one knows little) were considered risky sexual behaviors which had a potential to expose for HIV/AIDS.

**Non-regular sex partner:** sexual relationship with individual one knows little or with commercial sex workers.

**Multiple sexual partner:** sexual relationship with two or more individuals within 6 month period

**Unprotected sex:** penile –vaginal sex without condom

**Early sexual initiation:** penile -vaginal sexual intercourse before 18 years age.

**Knowledge on HIV/AIDS:** respondents who correctly know the three HIV/AIDS prevention methods and had no misconception about its transmission were considered knowledgeable if not labeled as not knowledgeable.

**Parent child communication on sexual issues:** respondents were considered to have parental communication if he/she had communication with parents at least once on either abstinence, HIV/AIDS or condom in the last 6 months, otherwise labeled as poor communication.

**Perceived Parental monitoring:** a student responded “YES” for one of three parental monitoring questions were categorized as had parental monitoring otherwise. Labeled as had not parental monitor

**Family connectedness:** respondents who score five and above for 6 items 5 point Likert scaled questions after categorizing strongly agree and agree as one and the rest as zero were labeled had good perceived family connectedness while four and below were labeled had poor family connectedness.

## **Variables of the study**

### **Outcome variable**

- Risky sexual behavior

### **Explanatory variables**

#### **I. Socio demographic variables**

- Age
- Sex
- religion
- Maternal education
- Father education status
- Average monthly income
- Parental residence

#### **II. Peer factor**

- Sexual experience of peer
- Peer pressure

#### **III. Individual factors**

- Academic performance
- Knowledge on HIV/AIDS

- Exposure to porn video
- Alcohol use
- Chewing chat
- Grade level
- Living arrangement

#### **IV. Family factors**

- parental monitoring
- Parental communication
- Family connectedness

#### **V. School factors**

- School type

### **3.7 Data collection and Quality measurement**

#### **3.7.1 Data collection instrument**

Structured Self-administered questionnaire was used to collect data from school youth.

Questionnaire was adopted from YRBSS (youth risk behavior surveillance survey questionnaire), previous researches done on risky sexual behavior and associated factors in Ethiopia, and EDHS questions with some modification to fit for the study objective. It was initially developed in English and translated to the local language Amharic and then back to English by different person to ensure consistency of meaning. Four MSC students and two BSC holder nurses were assigned as facilitator of data collection and the principal investigator closely supervised the data collection process.

#### **3.7.2 Data quality measures**

Before data collection questionnaire was pretested in DebreTabour Atsie Thewodros high school and amendment in language, content and order of the questions was made according to the findings

Data collector had had intensive training for 2 days before field visit on the purpose of the study, data collecting instrument, techniques of data collection and how to ensure confidentiality of the respondent's information.

Supervisor and data collectors made frequent check for consistency and completeness of the data filled during data collection period

### **3.8 Data processing and analysis**

Data was cleaned, coded and entered to Epiinfo version 7 and then imported to SPSS version 21 statistical package for analysis. Mean, proportions, and frequencies were computed to describe the study population in relation to relevant variables. Bivariate and multivariable analysis were used to identify factors predicting risky sexual behavior. Variables with  $p < 0.2$  in bivariate analysis were entered for multivariable logistic regression for further analysis to identify independent predictors of risky sexual behavior among high school youth and OR with 95% confidence level were computed then  $P < 0.05$  was used as cut of point to say variable is significantly associated

Hosmer-lemeshow model fitness test was computed and  $p > 0.5$  cut of point was used to say model fitted well.

### **3.9. Ethical consideration**

Ethical clearance was obtained from university of Gondar Institutional ethical Review Board and support letter was obtained from Gondar city Administration education office. Permission was obtained from directors of respective school and finally fully informed verbal consent was obtained from the study subjects after explaining the purpose, and objectives of the study.

For students less than 18 years parental consent form had given to provide for their parents one week prior to data collection and written parental consent was collected through home room teacher for successive five days by reminding students to bring it. At the end respondents' verbal assent was obtained to collect data

Confidentiality of respondents information was safeguarded as there were no personal link in the questionnaire, further more they were informed as they had had right to refuse to participate in the study. Finally information on risky sexual behavior related to HIV/AIDS was given among two of four schools after the data collection was completed.

#### 4. Results

Six hundred eighty six respondents had returned the questionnaire which gives 100% response rate, However only 673 (98.1%) of them were used for analysis since 13 (1.9%) of respondents data were regarded as invalid as a result of major incomplete and inconsistent information

##### **Socio demographic characteristics of respondents**

Three hundred eight (45.8%) of all respondents were males and the remaining 365 (54.2%) respondents were females. The mean age of respondents was  $17.3 \pm 1.6$  years.

***Table 1. Socio-demographic characteristics of high school students in Gondar city administration, northwest Ethiopia, 2015.***

Variables (N=673)	Frequency(n)	Percentage (%)
<b>sex</b>		
male	308	45.8
Female	365	54.2
<b>Grade</b>		
9 <sup>th</sup>	352	52.3
10 <sup>th</sup>	321	47.7
Total	673	100
<b>School type</b>		
private	74	11

Public	599	89
<b>Ethnicity</b>		
Amhara	638	94.8
Tigre	23	3.4
Others	12	1.8
<b>Religion</b>		
Orthodox	603	89.6
Muslim	54	8
Others	16	2.4
<b>Parental residence</b>		
Urban	463	68.8
Rural	210	31.2
<b>Marital status</b>		
Single	662	98.4
Others	11	1.6
<b>Age</b>		
15-19	611	90.8
20-24	62	9.2

***Socio-demographic characteristics of high school students in Gondar city administration, northwest Ethiopia, 2015.***

<b>Variables(N=673)</b>	<b>Frequency(N)</b>	<b>Percentage (%)</b>
<b>Living arrangement</b>		
Both biological parent	405	60.2%
Mother only	108	16%
Father only	13	1.9%
Relatives	121	18%
Others	26	3.9%
<b>Father education status</b>		
Illiterate	132	19.6%
Read and write only	202	30%
Primary school completed	100	14.9%
Secondary school completed	87	12.9%
Above secondary school	152	22.6%
<b>Mother education status</b>		
Illiterate	223	33.2%
Read and write only	184	27.2%
Primary school completed	79	11.7%

Secondary school completed	123	18.3%
Above secondary school	64	9.5%
<b>Monthly Family income</b>		
≤1000	151	22.4%
1001-2000	211	31.4%
2001-3000	115	17.1%
≥3001	196	29.1%

### Individual risk related behaviors of respondents

Two hundred forty three (36.1%) of all respondents had ever used alcohol, and 179(26.6%) of respondents had ever watched pornographic film as illustrated in **table 2**

**Table 2. Individual risk related behaviors among high school students in Gondar city administration, northwest Ethiopia,2015**

Variables (N=673)	Frequency(N)	Percentage (%)
<b>Ever used Alcohol</b>		
Yes	243	36.1%
No	430	63.9%
Total	673	100%
<b>Last month frequency of alcohol use(n=243)</b>		
Daily	15	6.2%
At least once a week	117	48.1%
Less than once a week	55	22.6%
Never used since last month	56	23.1%
<b>Ever use Khat (n =673)</b>		
Yes	37	5.5%
No	636	94.5%
<b>Last month frequency of khat use (N=37)</b>		
Daily	2	5.4%
At least once a week	19	51.4%
Less than once a week	10	27%
Never used since last month	6	16.2%
<b>Ever watch pornographic film (n=673)</b>		

Yes	179	26.6%
No	494	73.4%
Total	673	100%
<b>Last month frequency of watch porn video(n=179)</b>		
Daily	16	8.9
At least once a week	57	31.8
Less than once a week	56	31.3
Never watched since last month	50	27.9
Total		
<b>Academic performance</b>	179	100%
Poor		
Fair	29	4.3%
satisfactory	128	19%
Good	226	33.6%
Very good	167	24.8%
Excellent	90	13.4%
	33	4.9%

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### **Comprehensive knowledge of respondents on HIV/AIDS.**

One hundred seven (15.9%) of respondents were knowledgeable regarding HIV/AIDS. Two hundred seventy three (40.6%) respondents believed mosquito bite can transmit HIV/AIDS and 279(41.5%) respondents claimed using condom at all sexual intercourse could not help to prevent getting HIV/AIDS

***Table 3. HIV/AIDS related comprehensive knowledge among high school students in Gondar city administration, northwest Ethiopia, 2015***

<b>Variables(N=673)</b>	<b>Frequency(n)</b>	<b>Percentage (%)</b>
<b>Mother to child transmission</b>		
Yes	616	91.5%
No	57	8.5%
Total	673	100
<b>Abstinence help to prevent HIV</b>		
Yes	605	89.9%
No	68	10.1%
Total	673	100
<b>Faithful partner help to prevent HIV</b>		
Yes	451	67%
No	222	33%
Total	673	100
<b>HIV patient can be detected by observing body built</b>		
Yes	153	22.7%

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No	520	77.3%
Total	673	100
<b>Mosquito bite can transmit HIV</b>		
Yes	273	40.6%
No	400	59.4%
Total	673	100
<b>Sharing sharp material can transmit HIV</b>		
Yes	621	92.3%
No	52	7.7%
Total	673	100
<b>Avoiding sex with prostitute help to prevent HIV</b>		
Yes	324	48.1%
No	349	51.9%
Total	673	100
<b>Using condom at all sex help to prevent HIV</b>		
Yes	394	58.5%
No	279	41.5%
Total	673	100%

### Parent child communication on sexual issues

Three hundred seventy two (55.3%) respondents had discussed at least once on either abstinence, HIV/AIDS or condom in the last six month before the survey.

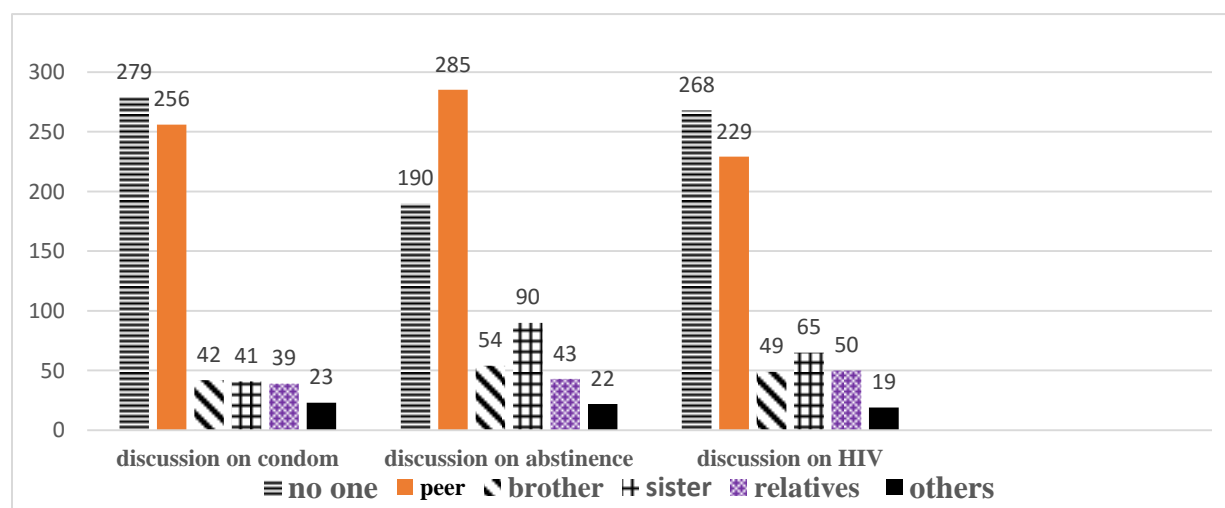
**Table 4. Parent child discussion regarding HIV/AIDS, abstinence and condom among high school students in Gondar city administration, northwest Ethiopia, 2015**

Variables	Frequency	Percentage (%)
<b>parent discussion regarding HIV</b>		
Yes	258	38.3%
No	415	61.7%
<b>With whom discussed(n=258)</b>		
mother only	58	22.5%
Father only	26	10.1%
Both	174	67.4%
Total	258	100%
<b>Reasons for not discussed(n=415)</b>		
Poor parent communication skill	147	21.8%
Parent lacks knowledge	97	14.4%
Parents are not good listeners	54	8%
Shame to discuss	47	7%
Culturally unacceptable	40	5.9%
Others	41	6.1%
<b>Parent discussion on abstinence</b>		
Yes	237	35.2%
No	436	64.8%

<b>With whom you discussed</b>		
Mother only	71	30%
Father only	21	8.9%
Both	145	61.1%
<b>Reasons for not discussed</b>		
Poor parent communication	157	23.3%
Lack of parental knowledge	83	12.3%
Culturally unacceptable	66	9.8%
Parent not good listeners	57	8.5%
Shame to discuss	39	5.3%
Others	53	7.9%
<b>Parent discussion on condom</b>		
Yes	138	20.5%
No	535	79.5%
<b>With whom discussed (n=138)</b>		
Mother	35	25.4%
Father	26	18.5%
Both	77	55.8%

## Respondent discussion experience on SRH issues apart from parents

Respondents' experience of discussion on sexual issues with individuals apart from their parent was assessed and majority of respondents report as they had not discussed with any one apart from parents regarding sexual issues. Respondents peer was most frequently mentioned group with whom respondents discussed sexual issues apart from their parent as compared to others which is summarized in **figure** below



**Figure 3. Respondents experience of discussion regarding sexual and reproductive health issues apart from parents among high school students in Gondar city administration northwest Ethiopia, 2015**

## Parental monitoring

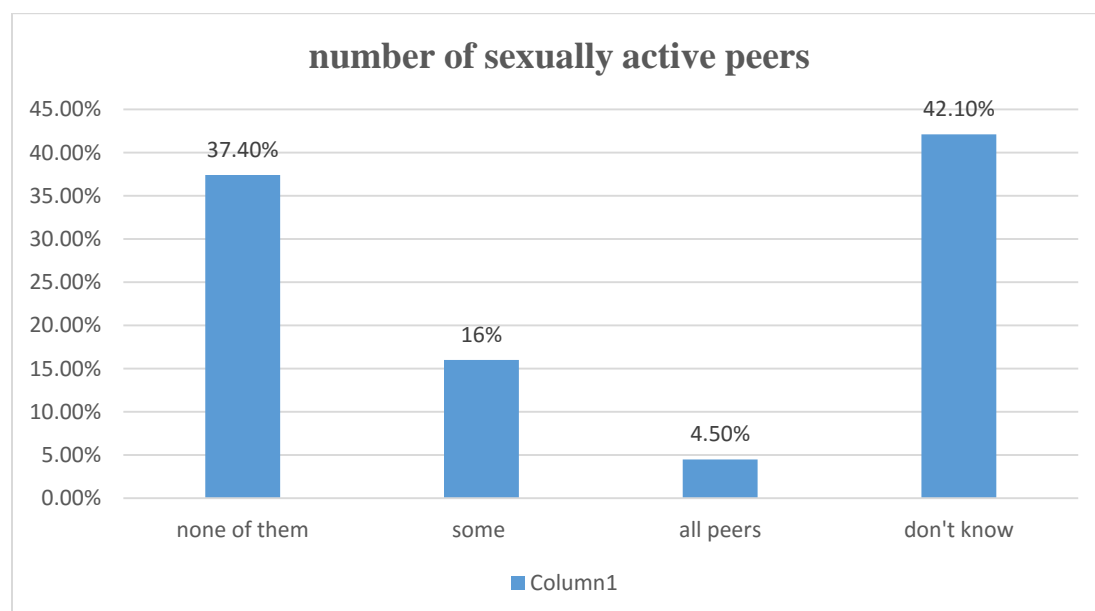
One hundred twenty (17.8%) of respondents had no parental monitor and the remaining 82.2% of respondents had parental monitor. Of all respondents 492(73.1%) and 444(66%) responded as their parents know where they are and with whom they stay when they leave home out of school time respectively. Furthermore 157(51%) of male respondents and 197(54%) of female respondents mentioned as their parents forbid them not to play with female and male individuals respectively.

## Family connectedness

Respondent's closeness to their family was assessed using six item five point Likert scale questionnaire with Cronbach's Alpha 0.93 .Of all 505(75%) of respondents had good perceived family connectedness while the rest 25% had poor perceived family connectedness.

## Peer related factors

Eighty eight (13.1%) of respondents had perceived peer pressure to have sex and 138 (20.5%) of respondents had sexually active peers.



**Figure 4. Number of sexually active peers among high school students in Gondar city Administration, northwest Ethiopia, 2015.**

### **Sexual behavior of respondents**

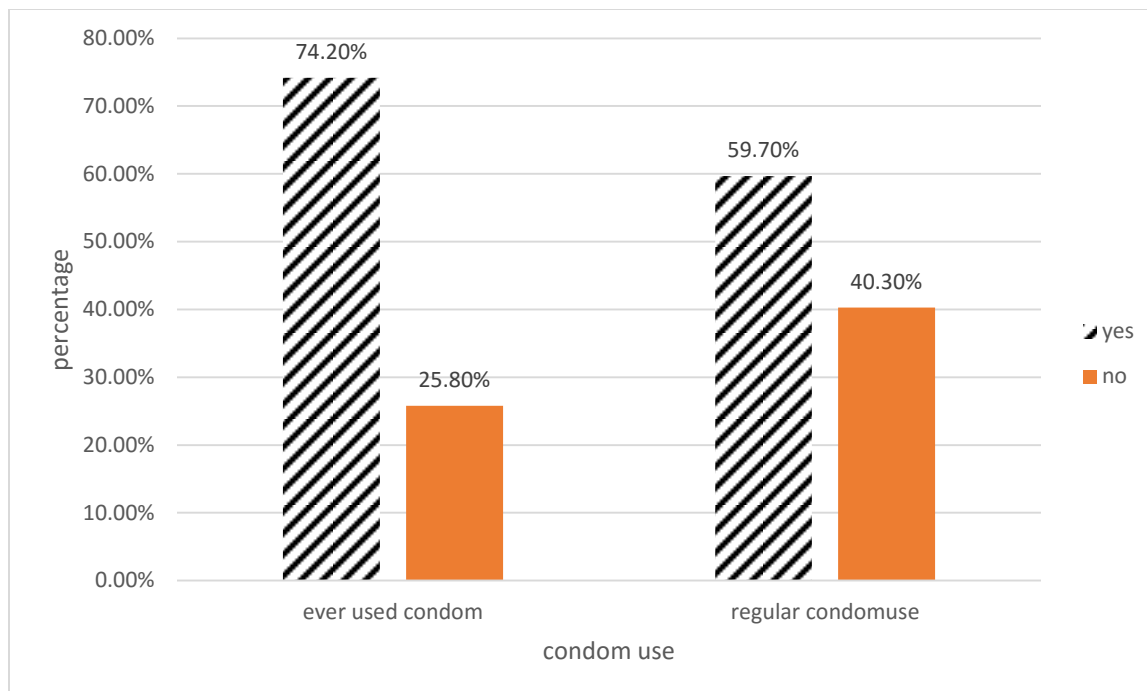
One hundred fifty nine respondents (23.6%) with (95% CI 20%-27%) were sexually experienced at the time of survey. Higher proportion of males 93 (54.5%) were sexually active while 66(45.5%) females were sexually active. The mean age at first sexual commencement was  $15.9 \pm 1.3$  years old, which is  $16.2 \pm 1.3$  for males and  $15.6 \pm 1.2$  among females. 134 (84.3%) of sexually active youth were below 18 year at the time of sexual initiation.

Majority of sexually experienced respondents (81.1%) were also sexually active within 6 months period before the survey. 36 (22.6%) of sexually active respondents used alcohol during their last sexual intercourse.

Eighty two (51.6%) and 25 (15.7%) of sexually active respondents had had more than one sexual partner in life time and within six month period before the survey respectively.

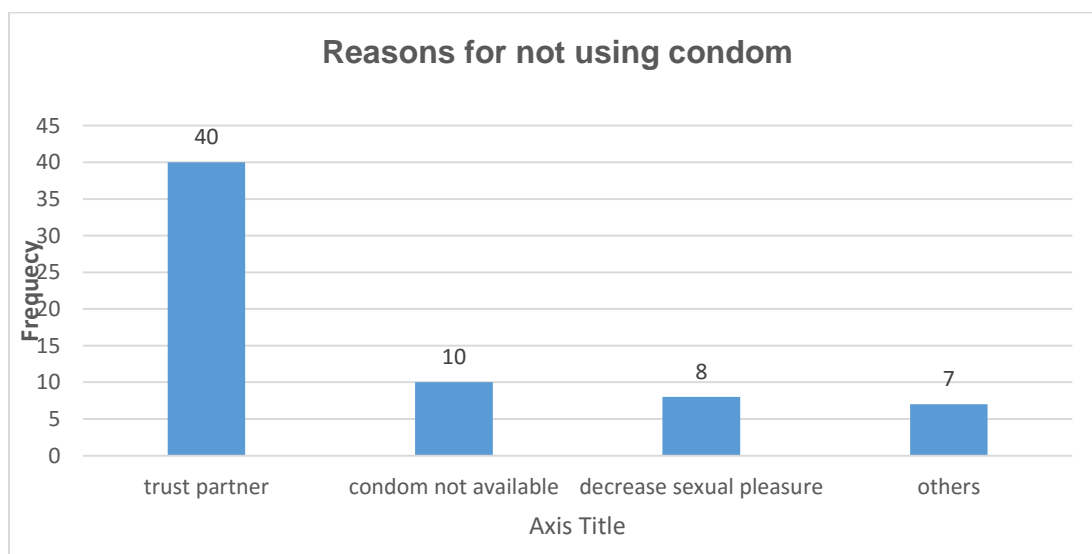
Thirty one (19.5%) of sexually active respondents ever had more than one sexual partner concurrently. Furthermore 16 (16.7%) of all sexually active male respondents had sexual contact with commercial sex workers among those only 3 (18.8%) of men who had sexual contact with prostitute uses condom in all sexual act with prostitute while the remaining 13(81.2%) never used condom or used often when they had sex with prostitute. Twenty nine (18.2%) of all sexually active respondents had had history of sexual contact with casual sex partner

Two out of five sexually active respondents (40.3 %) ever had unprotected sexual intercourse. Of which 41(64.1%) had not ever used condom while the remaining 23(35.9%) used condom inconsistently. And from all sexually active respondents 111(69.8%) used condom at their most recent sex. While 95 (59.7% with 95%CI, 54.9-64.6%) of sexually active respondents used condom consistently.



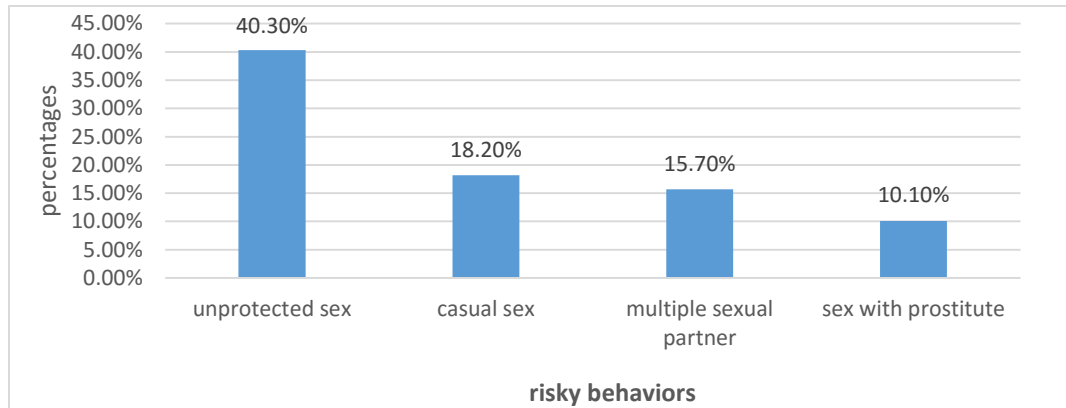
**Figure 5.** Condom use behavior among high school students in Gondar city administration, northwest Ethiopia, 2015.

Respondents were asked the reason for not using condom and trusting sexual partner was the most frequently mentioned (by 40 respondents) reason for not using condom followed by condom was not available and condom decreases sexual pleasure mentioned by 10 and 8 respondents respectively as illustrated in **figure** below.



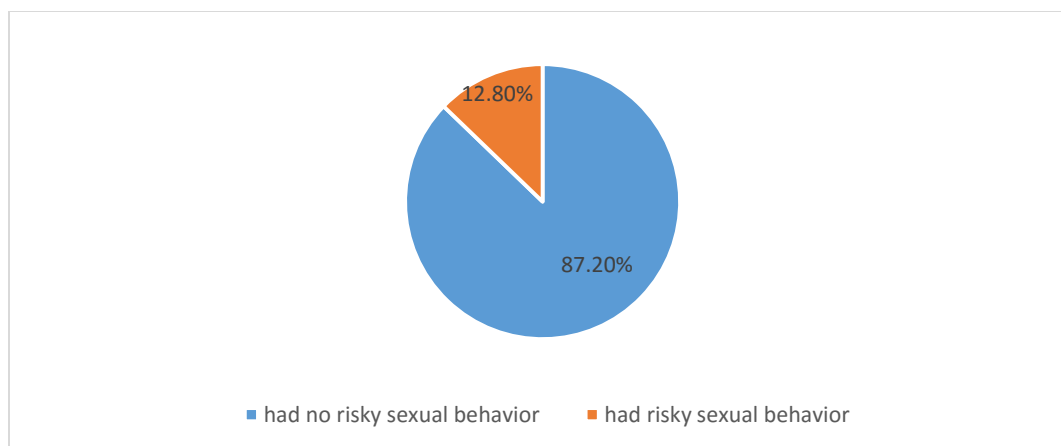
**Figure 6. Reasons for not using condom among high school students in Gondar city administration, northwest Ethiopia, 2015**

Component risky sexual behaviors are summarized in **figure 8** below



**Figure 7. Component risky sexual behaviors among high school students in Gondar city administration, northwest Ethiopia, 2015.**

Over all Eighty six (12.8%) of all respondents with (95% CI, 10.4%-15.3%) had had at least one risky sexual behavior for HIV infection, of which 62 (72.1%) were males and the rest 24 (27.9%) were females. Respondents reported at last one of risky sexual behaviors illustrated in **figure7** were labeled as had risky sexual behavior. As illustrated in **figure 8 below** 12.8% of all (54.1% of sexually active respondents) involved in risky sexual behavior related to HIV/AIDS.



**Figure 8.** Over all risky sexual behavior among high school students in Gondar city administration, northwest Ethiopia, 2015

### Factors associated with risky sexual behavior

In binary logistic regression male sex (COR, 3.58 95% CI (2.17-5.89), being in 20-24 age category (COR, 2.66 95% CI(1.44-5.00), ever used alcohol (COR, 11.4 95% CI (6.4-20.5), watching pornographic film (COR, 7.04 95%CI(4.33-11.44), experiencing peer pressure (COR, 6.02 95%CI(3.59-10.08) have no parental monitoring (COR, 21.83 95%CI (12.75-37.38), parent child discussion( COR,2.93 95% CI(1.81-4.74), having some sexually experienced peers (COR, 5.16 95% CI(2.65-10.03), having all sexually experienced peer (COR, 12.90 95% CI(5.364-31.05)) were significantly associated factors with risky sexual behavior at p-value<0.05. And perceived parent-child connectedness was significant factors at p-value <0.2. All variables which had p-value less than 0.2 at binary logistic regression were entered to multivariable logistic regression.

In multivariable logistic regression ever used alcohol (AOR, 3.53 95% CI (1.73-7.19)), pornographic film watch (AOR, 2.24 95% CI (1.15-4.35), had no parental monitor (AOR, 12.21 95% CI (6.55-22.78) ,experiencing peer pressure (AOR, 2.50, 95%CI (1.20-5.21), had parental discussion on SRH issues (AOR, 2.57 95% CI (1.36-4.85) were significantly associated with risky sexual behavior

As illustrated in the **table 5** below the odds of risky sexual behavior among respondents ever used alcohol was 3.5 times higher than their counterpart, and the odds of risky

sexual behavior among those ever watched pornographic film was 2.2 times higher than their counter part.

The odds of practicing risky sexual behavior among respondents who had no parental monitor were 12 times higher than respondents who had parent monitor. Besides the odds of risky sexual behavior among respondents who had parental discussion regarding sexual and reproductive health issues were 2.6 times higher than their counterpart

Respondents who had experienced peer pressure to have sex were 2.5 times at higher risk to practice risky sexual behavior than their counterpart.

*Table 5. Binary and multivariable logistic regression analysis according to selected determinants for risky sexual behavior among high school students in Gondar city administration, northwest Ethiopia, 2015.*

Variables	Risky sexual behavior		OR (95% CI)		P-value
	Yes (%)	No (%)	COR	AOR	
<b>Sex</b>					
male	62(36.6)	246(50.7)	3.58(2.17-5.89) *	1.46(0.75-2.80)	0.26
female	24(15.1)	341(26.4)	1.00	1.00	



<b>Alcohol use</b>					
yes	71(10.5)	172(25.6)	<b>11.4(6.4-20.5)*</b>	<b>3.53(1.73-7.19) **</b>	<b>0.001</b>
No	15(2.2)	415(61.7)			
<b>Pornographic film watch</b>					
Yes	56(8.3)	123(18.3)	<b>7.04(4.33-11.44) *</b>	<b>2.24(1.15-4.35)**</b>	<b>0.017</b>
No	30(4.5)	464(68.9)	1.00	1.00	
<b>Age category</b>					
15-19	70(10.4)	511(80.4)	1.00		
20-24	16(2.4)	46(6.8)	<b>2.66(1.44-5.00)*</b>	1.46(0.60-3.53)	0.398
<b>Peer pressure</b>					
Yes	55(20.8)	33(4.9)	<b>6.02(3.59-10.08)*</b>	<b>2.50(1.20-5.21)**</b>	<b>0.014</b>
No	53(7.9)	532(79)	1.00	<b>1.00</b>	
<b>Parent-child discussion on sexual issues</b>					
Yes	28(17.6)	344(19.5)	<b>1.00</b>	<b>1.00</b>	
No	58(36.5)	243(26.4)	<b>2.93(1.81-4.74)</b>	<b>2.57(1.36-4.85)**</b>	<b>0.003</b>
<b>Perceived parent control</b>					
Had parental monitor	25(15.7)	528(28.3)	1.00	<b>1.00</b>	
Had not parental monitor	61(38.40)	59(8.8)	<b>21.83(12.75-37.38) *</b>	<b>12.21(6.55-22.78)**</b>	<b>&lt;0.0001</b>
<b>Perceived parental connectedness</b>					
poor	28	140	1.54(0.94-2.51)	1.02(0.52-2.02)	<b>0.93</b>
Good	58	447	<b>1.00</b>		
<b>Peers sexual experience</b>					<b>0.136</b>
No sexually active peer	16(2.4)	236 (35.1)	<b>1.00</b>	<b>1.00</b>	
Some peers start sex	28(4.2)	80(11.9)	<b>5.16(2.65-10.03)</b>	0.532(0.24-1.20)	
All peers start sex	14(2.1)	16(2.4)	<b>12.90(5.364-31.05)</b>	0.93(0.426-2.04)	
Don't know	28(4.2)	255(37.9)	1.60(0.85-3.06)	2.26(0.704-7.03)	

*\*indicate significant variable in binary logistic regression*

*\*\* indicate significant variable at multivariable logistic regression*

Hosmer-lemeshow model fitness test was checked and p-value is 0.35 which indicates the model is fitted well

## 5. Discussion

The study assessed prevalence of risky sexual behaviors and associated factors among high school students in Gondar city administration

The overall prevalence of risky sexual behavior in this study was 12.8% with ((95% CI, 10.4%-15.3%)). This finding is in line with findings from Humera high school where

13.7% with (95%CI,10.6%-16.8%) of respondents ever had risky sexual behavior (15). This is due to geographical as well as cultural closeness between the two study areas, as a result the population attitude for having sex and taking safe measures would be equally affected. However this finding is lower than findings among Bodity high school students in Wolayita at which 17.9% (CI 14.7%-21.5%) respondents had risky sexual behavior (20). This could be explained as a result of preparatory school youth were involved besides to 9<sup>th</sup> and 10<sup>th</sup> unlike this study, so that higher grade students had more exposure to practice risky sexual behaviors than junior high school students.

The mean age at first sexual commencement in this study was  $15.9 \pm 1.3$  which is  $16.2 \pm 1.3$  among males and  $15.6 \pm 1.2$  among female respondents. This demonstrates that high school students are sexually active at an early age which prolongs their exposure to contract sexual ill health including HIV/AIDS. This is nearly similar with mean age at first sexual initiation among Indian urban school adolescents which was 15.25 and 16.66 years old among females and males respectively (23). However this finding was lower than the mean age at first sex among Bodity high school students which was  $16.6 \pm 2$  equally for male and female youth (20). This could be due to older age respondents were involved since preparatory school students were represented in Boditti high school while in this study only junior high school students (9<sup>th</sup> and 10<sup>th</sup>) were involved.

Two out of five sexually active respondents had ever involved in unprotected sexual intercourse at some point in their life, of which 41(64.1%) hadn't ever used condom while the rest 23(35.9%) used condom inconsistently. This finding is higher than a finding from national level study in Ethiopia at which only 14.3% of sexually active respondents reported unprotected sex (13). This is as result of large sample size was used at the national survey to represent the whole youth which had a potential to reduce the prevalence.

Ninety five (59.8%) of sexually active respondents with (95%CI, 53.4%-64.6%) used condom regularly among these 59(62.1%) and 36(37.9%) were males and females respectively. This finding is higher than findings from Bhutan where 49.1% (49.5% males and 30.1% females) used condom consistently and in South Africa 44.8%

sexually active youth (47.2% males and 41.9% female) used condom regularly(25, 29). Similarly this finding is higher than findings from Cameroon where 25% sexually active youth used condom regularly (16) .

The likely explanation for the observed difference could be number of sexually active youth, in this study only 23.6% of respondents were sexually active however it is more than 30% of respondents were sexually active in the aforementioned comparable studies.

Eighty two (51.6%) of sexually active respondents ever had more than one sexual partner of these 54(65.9%) and 28(34.1%) were males and females respectively, This finding is lower than other studies in Ethiopia enemay district where 54.1% (52.2% sexually active male and 64.4% female) and Awi zone where (63.3% sexually active male and 36.6% female) reported history of more than one sexual partner (32, 36). The difference may be as a result of these studies include 11<sup>th</sup> -12<sup>th</sup> grade students besides to 9<sup>th</sup> -10<sup>th</sup> unlike this study which relays on 9<sup>th</sup> and 10<sup>th</sup> only. Which may increase a potential to have many sexual partner as they pass from grade to grade.

In this study 31(19.5%) of sexually active respondents had had two or more sexual partner concurrently. This finding is lower than findings from studies in Ghana and Nigeria where 31% and 40% of youth ever had two or more sexual partner at a time(31, 34). The difference could be due to cultural difference between countries to claim permissive attitude towards having concurrent sexual partner. In Ethiopia having more than one sexual partner at a time is highly condemned in many parts including the study area.

In this study thirty three (20.8%) of sexually active respondents had sexual contact with non-regular sexual partner including commercial sex workers. This finding is lower than findings from Colombia at which 40% of youth had sexual contact with non-regular sexual partner(18), This difference could be due to socioeconomic and cultural difference across countries. However this finding is similar with a study in Nigeria(38).

In this study respondents who ever drink alcohol were at higher risk to involve in risky sexual behavior. This is as a result of myopic effect of alcohol to make decision by

considering the consequence of sexual practices. Individuals with alcohol influence make decision without analyzing consequences to be followed after having sex driven by immediate personal desires. This finding is in line with findings from national level study in Ethiopia and northwest Ethiopia(13, 39), similarly alcohol is associated with risky sexual behavior in Bolivia and Kenya(50, 51)

Respondents who ever watched pornographic film were at higher risk to involve in risky sexual behavior. This finding is in line with studies in Saudi Arabia and other parts of Ethiopia from Jimma and Humera(15, 47, 55). This may be due to access of enhanced mobile technology, internet and wide spread porn video media portrayals which fuels the problem of risky sexual behavior among youth, adolescents are sensitive to experiment what they hear and look as a result of natural transition stage to adult and hence they are prone to be driven by porn video they watch to experiment risky sex. However national level study in Ethiopia indicate pornographic film is not associated with sexual behavior(13) . This is due to national study includes youth from rural areas to represent national youth where internet access and mobile technology are hardly accessed.

Parental monitor is significantly associated with risky sexual behavior at which the odds of engaging in risky sexual behavior among respondents who had no parental monitor were twelve times higher than their counter part. This finding is in line with findings from Salvador Tanzania and other parts of Ethiopia (Harar ,west Ethiopia, and Gojam)(12, 19, 52, 57, 58). This is due to parental control makes youth to remain abstinent and enables youth to solicit with youth who had no deviant behavior.

Parental discussion is another significantly associate factor with risky sexual behavior. Respondents who ever had parental discussion on sexual and reproductive health issues at least once within six months period before the survey were less likely to involve in risky sexual behaviors. This is supported by other studies in South Africa and other parts of Ethiopia (25, 52). This could be due to parent child discussion equips youth with skill and information to remain safe towards risky sexual behavior.

Peer pressure is highly associated with risky sexual behavior in this study. Respondents who ever experienced peer pressure to have sex were 2.5 more at risk to involve in

risky sexual behavior. This finding is in line with studies in other parts of Ethiopia in Bahir Dar, Gojam, and western Ethiopia (52, 53, 58).this could be due to peers are most influential socializing agent for sexuality among youth. Youth need attention, and recognition with peers so that they are liable to behave in a manner intimate friend practice. This is also supported by studies in South Africa and Cameroon(16, 25)

## **6. Limitation of the study**

As a result of cross-sectional study design is used cause effect relationship cannot be determined, further more sexual and reproductive health information are sensitive by their nature so that social desirability bias cannot be completely ruled out and the study is limited to school so that the result cannot be generalized to the whole youth in the study area.

## **7. Conclusion and recommendations**

### **7.1 Conclusion**

Risky sexual behavior among high school students in Gondar city administration was very high and worrisome.

Ever used alcohol, ever watched pornographic film, had no parent monitor, had parent-child discussion on SRH issues, and peer pressure to have sex were factors increased practice of risky sexual behavior among youth in the study area.

Considerable proportion of youth had poor knowledge and misconceptions towards HIV/AIDS transmission and prevention methods.

### **7.2. Recommendations**

### **To health policy makers**

- School based sex education need to be incorporated with curriculum and integrated with local health departments so that health professionals would have constant session to disseminate factual information to build knowledge on sexual issues and break misconceptions towards sexual issues among youth.

### **To city health bureau**

- Better to provide life skill training for selected students from all high schools to be potential trainers in their respective school and provide continuous support and encouragement afterward. Which capacitate students to say no for early sexual intercourse or negotiate for safe sex practice.
- There is a need to equip parents with appropriate IEC material and communication skill on sexuality and RH related issues

### **To school community**

- ✓ Teachers and school administers better be alert and responsive for any deviant behavior like watching porn video in mobile among students
- ✓ strength anti AIDS club members and organize school mini-media to provide information on risky sexual behavior to HIV infection in better way than ever before

### **To parents**

- ✓ Parents need to be unreserved to know every day's activity of their kid from school and out of school including knowing with whom their child stay more

### **For researchers**

- ✓ Further research to examine the effect of community level factors, pattern (quality) of parent child communication regarding sexual issues and why youth did not use condom.

## **8. References**

1. WHO. The health of young people: a challenge and a promise, world health organization. Geneva: 1995.
2. Fentahun N, Mamo A. Risky sexual behaviors and associated factors among male and female students in jimma zone preparatory schools, south west ethiopia: Comparative study. *Ethiopian journal of health science*. 2014;24(1).
3. Cooper ML. Alcohol Use and Risky Sexual Behavior among College Students and Youth: Evaluating the Evidence. *Journal of studies on alcohol*. 2002;14.
4. Dingeta T, Oljira L, Assefa N. Patterns of sexual risk behavior among undergraduate university students in Ethiopia: a cross-sectional study. *The pan African medical journal*. 2012;12(33).
5. World Bank. World Development Report :Development and the Next generation Washington, DC, USA, 2007
6. UNFPA. The state of world population. Geneva: 1997.
7. Shiferaw K, Getahun F, Asres G. Assessment of adolescents' communication on sexual and reproductive health matters with parents and associated factors among secondary and preparatory schools' students in Debre markos town, North West Ethiopia. *Reproductive health journal*. 2014;11.
8. Chandra-mouli V mD, philips SJ, Williamson NE, Hains worth G. contraception for adolescents in low and middle income countries 2014;11(1).
9. WHO, UNAIDS, UNICEF. Global HIV AIDS Response - Epidemic update and health sector progress towards Universal Access - Progress report. Geneva: 2011.
10. HAPCO. HIV/AIDS multisectoral response annual monitoring and evaluation. Addis Ababa: 2008-2009.
11. Ethiopian Health and Nutrition Research Institute (EHNRI). Report on the 2009 Round Antenatal Care Sentinel HIV Surveillance in Ethiopia. Addis Ababa: 2011.
12. Dessie Y, Berhane Y, Worku A. High parental monitoring prevents adolescents from engaging in risky sexual practices in Harar, Ethiopia. *Global Health Action*. 2014;7(25724).
13. Kebede D, Alem A, Mitike G, Enquselassie F, Berhane F, Abebe Y, et al. Khat and alcohol use and risky sex behaviour among in-school and out-of-school youth in Ethiopia. *BMC*. 2005;5(109).
14. Abebe M, Tsion A, Netsanet F. Living with parents and risky sexual behaviors among preparatory school students in Jimma zone, South west Ethiopia. *African health science*. 2013;13(2).
15. Dadi AF, Teklu FG. Risky sexual behavior and associated factors among grade 9-12 students in Humera secondary school, western zone of Tigray, NW Ethiopia. *Science Journal of Public Health*. 2014;2(5):410-6.
16. Meekers D, Calves A-E. Gender differential in adolescent sexual activity and reproductive health risks in cameroon. *African journal of reproductive health*. 1999;3(2).
17. Tura G, Alemseged F, Dejene S. Risky sexual behavior and predisposing factors among students of jimma university, ethiopia. *Ethiopian journal of health science*. 2012;22(3).
18. Campo-Arias A, Ceballo GA, Herazo E. Prevalence of Pattern of Risky Behaviors for Reproductive and Sexual Health Among Middle- and High-School Students. *Rev Latino-Am Enfermagem*. 2010;18(2):170-4.
19. Mlunde LB, Poudel KC, Sunguya BF, Mbwapbo JKK, Yasuoka J, Otsuka K. A call for parental monitoring to improve condom use among secondary school students in Dar es Salaam, Tanzania. *BMC*. 2012;12(1061).
20. Daka D. magnitude of risk sexual behaviour among high school adolescents in Ethiopia. *Journal of public health and epidemiology*. 2014;6(7):211-5.
21. Kastbm AA, sydsjo G, Bladh M, Priebe G, Svedin C-G. Sexual debut before the age of 14 leads to poorer psychosocial health and risky behaviour in later life. *ACTA PAEDIATRICA*, John Wiley and his son. 2014;104:91-100.

22. Oliveira-Campos M, Nunes ML, Madeira FdC, Santos MG, Bregmann SR, Malta DC, et al. Sexual behavior among Brazilian adolescents, National Adolescent School-based Health Survey (PeNSE 2012. *REV BRAS EPIDEMIOL SUPPL PeNSE*. 2014;116-30.
23. Ramadugu S, Ryali V, Bhat KSPS, J.Prakash. Understanding sexuality among Indian urban school adolescents *Industrial psychiatry journal*. 2011;20(1).
24. Rudatsikira E, Ogbwell O.A.E, Sizia S, Muula A.S. prevalence of sexual intercourse among school going adolescent in coast province, Kenya. *Tanzania research buletin*. 2007;9(3).
25. Awotidebe A, Phillips J, Lens W. Factors Contributing to the Risk of HIV Infection in Rural School-Going Adolescents. *International journal of environmental research and public health*. 2014;11.
26. Seme A, Wirtu D. Premarital Sexual Practice among School Adolescents in Nekemte Town, East Wollega *Ethiopian journal of health development*. 2008;22(2).
27. Shafi T, stovel K , Holmes K. Association between condom use at sexual debut and subsequent sexual trajectories: a longitudinal study using biomarkers. . *American journal of public health*. 2007;97(6).
28. Wellings K, collumbien M, slaymaker E, singh S, hodes Z, patel D, et al. Sexual behaviour in context: a global perspective. *Lancet*. 2006;368:1706-28.
29. Norbu K, Mukhia S, Tshokey. Assessment of knowledge on sexually transmitted infections and sexual risk behaviour in two rural districts of Bhutan. *BMC*. 2013;13(1142).
30. Springer AE, Selwyn B, Kelder SH. A descriptive study of youth risk behavior in urban and rural secondary school students in El Salvador. *BMC*. 2006;6(3).
31. Doku D. Substance use and risky sexual behaviours among sexually experienced Ghanaian youth. *BMC*. 2012;12(571).
32. Dekeke GD, Sandy PT. Factors influencing sexual risk behaviour among senior secondary school students. *International Journal of Scientific and Research Publications*. 2014;4(8).
33. Siyan Y, Poudel KC, Yasuoka J, Palmer PH, Songky Y, Jimba M. Role of risk and protective factors in risky sexual behavior among high school students in Cambodia. *BMC*. 2010;10(477).
34. Morhason-Bello I, Oladokun A, Enakpene C, Fabamwo A. Sexual behaviour of in-school adolescents in Ibadan, South-West Nigeria. *African journal of reproductive health*. 2008;12(2).
35. HAPCO. The second HIV/AIDS Behavioural Surveillance Survey (BSS). 2005.
36. Mekuria M. Premarital sexual practice and perception of high risk of hiv/aids among school adolescents in injibara town, awi zone: Addis Ababa 2008.
37. Zaw PPT, Liabsuetrakul T, McNeil E, Htay TT. Gender differences in exposure to SRH information and risky sexual debut among poor Myanmar youths. *BMC*. 2013;13(1122).
38. Stella C, Ogbuagu, Charles J. Survey of sexual networking in Calabar. *HEALTH TRANSITION REVIEW*. 1993;3.
39. Alemu H, Mariam DH, Belay A, Davey G. Factors Predisposing Out-of-School Youths to HIV/AIDS-related Risky Sexual Behaviour in Northwest Ethiopia. *J HEALTH POPUL NUTR*. 2007;3(344).
40. Anwar M, Sulaiman SAS, Ahmadi K, Khan TM. Awareness of school students on sexually transmitted infections (STIs) and their sexual behavior: a cross-sectional study conducted in Pulau Pinang, Malaysia. *BMC*. 2010;10(47).
41. Olapegba PO, Idemudia ES, Onuoha UC. Gender difference in responsible sexual behaviour of in school adolescents in ondo state ,southwest Nigeria. *African journal online(AJOL)*. 2013;11(1): .
42. Alamrew z, Bedimo M, Azage M. Risky Sexual Practices and Associated Factors for HIV/AIDS Infection among Private College Students in Bahir Dar City, Northwest Ethiopia. *ISRN Public Health*. 2013.



43. McCREE DH, WINGOOD GM, DiCLEMENTE R, Devies S, HARRINGTON KF. Religiosity and Risky Sexual Behavior in African- American Adolescent Females. *Journal of adolescent health.* 2003;33.
44. Twa-Twa JM. The role of the environment in the sexual activity of school students in Tororo and Pallisa districts of Uganda. *Health Transition Review.* 1997;7:67-81.
45. Mulu W, Yimer M, Abera B. Sexual behaviours and associated factors among students at Bahir Dar University: a cross sectional study. *Reproductive health journal.* 2014;11(84).
46. SKhalaj F, Farahani A, Cleland J, SHooshang A, Mehryar. Associations Between Family Factors and Premarital Heterosexual Relationships Among Femalep College Students inTehran. *international perspective on sexual and reproductive health.* 2011;37(1).
47. Raheel H, Mahmood MA, BinSaeed A. Sexual practices of young educated men: implications for further research and health education in Kingdom of Saudi Arabia (KSA). *Journal of public health* 2011;35(1):21-6.
48. Puente D, Zabaleta E, Rodríguez-Blanco T, Cabanas M, Monteagudo M, Pueyo MJ, et al. Gender differences in sexual risk behaviour among adolescents in Catalonia,Spain. *Gac sanit.* 2011;25(1).
49. Mohammadi MR, Mohammad K, Farahani FKA, Alikhani S, Zare M, Tehrani FR, et al. Reproductive Knowledge, Attitudes and Behavior Among Adolescent Males in Tehran, Iran. *international family planning perspective.*32(1).
50. Novilla MLB, Dearden KA, Crookston BT, Cruz NDL, Hill S. Adolescents Engaging in Risky Sexual Behavior: Sexual Activity and Associated Behavioral Risk Factors in Bolivian Adolescents. *International Electronic Journal of Health Education.* 2006;9.
51. Mensch BS, Clark WH, Lloyd CB, Erulkar AS. Premarital Sex, Schoolgirl Pregnancy, and School Quality in Rural Kenya. *Studies in Family Planning.* 2001;32(4).
52. Negeri EL. Assessment of risky sexual behaviors and risk perception among youths in Western Ethiopia: the influences of family and peers: a comparative cross-sectional study. *BMC.* 2014;14(301).
53. Mulugeta Y, Berhane Y. Factors associated with pre-marital sexual debut among unmarried high school female students in bahir Dar town, Ethiopia: cross- sectional study. *Reproductive health journal.* 2014;11(40).
54. Tilahun M, Ayele G. Factors associated with Khat use among youths visiting HIV testing and counseling centers in Gamo Gofa,Southern Ethiopia. *BMC.* 2013;13(1199).
55. Abebe Mamo Gebretsadik NFB. Family environment and sexual behaviours in Jimma zone, south west Ethiopia *science journal of public health.* 2014;2(6):539-45.
56. Ahmadian M, Hamsan HH, Abdullah H, Samah AA, Noor AM. Risky Sexual Behavior among Rural Female Adolescents in Malaysia: A Limited Role of Protective Factors. *Global journal of health science.* 2014;6(3).
57. Springer AE, Sharma S, Guardado AMd, Nava FV, Kelder SH. Perceived Parental Monitoring and Health Risk Behavior among Public Secondary School Students in El Salvador. *the Scientific world Journal.* 2006;6:1810–4.
58. Asrat A. Assessment of sexual risk behaviours of in-school youth: Effect of living arrangement of students; West Gojam zone, Amhara regional state, Ethiopia. *American Journal of Health Research.* 2014;2(2).
59. Central Statistical Agency. Population and housing census of Ethiopia result for Amhara region. Addis Ababa2007,.

## **9. ANNEXES**

### **Annex I: Information sheet and consent form**

Information sheet and consent form for participants in a study on risky sexual behavior to HIV infection and associated factors among high school students in Gondar city administration, northwest Ethiopia

**Name of principal investigator:** Abebaw Wasie

**Name of organization:** university of Gondar

#### **Introduction.**

The information sheet and consent form is prepared by principal investigator to clarify the study that you are asked to take part .The investigator is masters student in public health at university of Gondar

You are kindly invited to see this form carefully before you decide to participate. If you get confusion in the information sheet and consent form please raise for facilitator.

**Purpose:** the main purpose of the research is to assess the magnitude of risky sexual behavior to HIV infection and associated factors among high school students in Gondar city administration. The finding of this study will contribute to identify the main factors in risky sexual practice among students that play a great role in designing age and need specific strategies for reduction of new HIV infection among in school youth.

**Procedure:** in order to realize the aforementioned purpose informed verbal consent will be obtained from each student and then written consent form will be delivered along with self-administered questionnaire for each participant by data collectors. All responses given by the participant and the result obtained will be kept confidential using coding system whereby no one can access your response.

**Risk/discomfort:** there is no any anticipated harm which will happen to you due to your participation, unless you feel discomfort owing to your wasted time but it is not as such long which will take about 30 minutes.

**Benefit or incentive:** by your participation you will not get direct benefit but you can improve your and your relative's health at some point in time by the findings of this research.

**Confidentiality:** the information that we will gather from this research will be kept confidential and used only for the research purpose. There is no question or document that require your name or any other personal identification. Because your participation is completely voluntary, you may stop filling the questionnaire at any time or skip any question you do not feel comfortable in answering. Information about you that will be collected from the study will be stored in a file, which will not have your name on it, but a code number assigned to it and you need not to tell your name because we want to assess an average finding but not individually.

**Person to contact:** if you have any question, you can contact

**Principal investigator: Abebaw Wasie**

**Cell phone:** +251925090600

**E-mail:** abebawasie@gmail.com

**Advisor: Dr. Mezgebu Yitayal**

**E-mail:** mezgebuy@gmail.com

**At this time, do you want to ask me anything about the survey?**

**YES**----- **NO** -----

**Would you be willing to participate?**

**YES** ----- **NO** -----

**If your response is no, return the questionnaire to the facilitator**

**If your response is yes please put your signature at consent form below and pass to next page**

I have been informed that I am going to respond to these questions by answering what I know .I have been informed that the information I give will be used only for the purpose of finding out problems of youth sexual behavior and factors related to HIV infection. I have also been informed that I can refuse to participate in the study or not to respond partial or the whole questions I am not interested. Furthermore I have been informed that I can stop responding to the questions at any time in the process. Based on the above information I agree to participate in the research voluntarily with the hope of contributing (on behalf of one) to the effort of knowing the level and factors of risky sexual behavior to HIV infection among male and female high school youth in Gondar city administration.

**Signature** -----

**Date** -----

**Thank you in advance**

## Annex I I: Questionnaire

### I. Socio-demographic characteristics related questions

Description	Code	choice	Skip to
1.1 sex	0	male	
	1	female	
1.2 how old are you?		(.....) complete year	
1.3 what is your grade level	0	9 <sup>th</sup>	
	1	10 <sup>th</sup>	
1.4 school type you enrolled	0	public	
	1	private	
1.5 religion	0	orthodox	
	1	Muslim	
	2	protestant	
	3	others	
1.6 How often do you visit religious institutions?	0	Daily	
	1	At least once a week	
	2	At least once per month	
	3	At least once per year	
	4	Less than once per year	
	5	Never visit	
1.7 ethnicity	0	Amhara	
	1	Tigre	
	2	Others	
1.8 parental residence	0	urban	
	1	rural	
1.9 with whom do you live now	0	Both biological parent	
	1	Mother only	
	2	Father only	
	3	Brother	
	4	sister	
	5	Friend	
	6	Relatives	
	7	Alone	
	8	other	
1.10 what is your family average monthly income		(-----) ET.Birr	

<b>description</b>	<b>code</b>	<b>choice</b>	<b>Skip</b>
1.11 what is your mother's education status	0	Illiterate	
	1	Read and write	
	2	Primary(1-8)	
	3	Secondary (9-12)	
	4	Above secondary	
1.12 what is your father's education	0	Illiterate	
	1	Read and write	
	2	Primary(1-8)	
	3	Secondary (9-12)	
	4	Above secondary	

## II. Individual characteristics

<b>Description</b>	<b>Code</b>	<b>choice</b>	<b>Skip to</b>
2.1 Have you ever consumed alcohol (like Tej, Araki,Tella, Beer)?	0	yes	
	1	No	2.3
2.2 How often do you consume alcohol since the last one month?	0	always	
	1	At least once a week	
	2	< once a week	
	3	Never consumed in last month	
2.3 have you ever watched pornographic film?	0	Yes	
	1	No	2.5
2.4 How often do you watch pornographic film since the last one month?	0	Always	
	1	At least once a week	
	2	Less than once a week	
	3	Not watched since last month	
2.5 have you ever used khat	0	yes	

	1	no	2.7
2.6 how often have you had chewing chat in the last 1 month	0	Every day	
	1	At least once a week	
	2	Less than once a week	
	3	Never	
2.7 what is your academic performance in the last semester	0	<50%	
	1	50-59	
	2	60-69	
	3	70-79	
	4	80-89	
	5	90-100	

### III. Knowledge of respondents regarding HIV/AIDS

Description	Code	choice	Skip to
3.1 a person with HIV/AIDS looks emaciated or looks unhealthy in some way	0	yes	
	1	No	
3.2 can people get AIDS by mosquito bite?	0	Yes	
	1	No	
3.3 can people get AIDS by sharing sharp materials like razor or through injecting with unsterilized needle	0	No	
	1	Yes	
3.4 Can the virus that causes AIDS be transmitted from a mother to her baby	0	No	
	1	Yes	

Description	Code	Answer	skip
3.5 Can Avoiding sexual intercourse until marriage prevent AIDS?	0	No	
	1	Yes	
3.6 Have faithful one-to-one relationship with uninfected partner prevent from getting AIDS Virus?	0	No	
	1	Yes	
3.7 Can Using condom during every sexual intercourse prevent from HIV infection?	0	No	
	1	yes	
3.8 Can Avoiding sexual contact with prostitute	0	No	

used to prevent HIV infection?	1	Yes	
--------------------------------	---	-----	--

**IV. Parental monitoring practices Tick at the box which explains your parent's practice.**

Description	code	Answer	skip
4.1 do your parents know where you are, when you outside home	0	No	
	1	Yes	
4.2 Do parents know, with whom you are, when outside home	0	No	
	1	Yes	
4.3 <b>(for male only)</b> Do your parents forbid you not to play with females	0	No	
	1	Yes	
4.4 <b>(for females only)</b> Do your parents forbid you not to play with males	0	No	
	1	Yes	

**V. communication regarding sexual health matters**

Description	Code	choice	Skip to
5.1 have you ever discussed on HIV/AIDS with your parents in the last 6 months	0	yes	5.3
	1	no	
5.2 If you don't discussed what are the reasons <b>(tick all answers you think)</b>	0	Culturally unacceptable	
	1	shame	
	2	Lack of knowledge	
	3	Lack of parental communication skill	
	4	Parents are not good listener	
	5	other	
5.3 with whom you discuss	0	Father	
	1	Mother	
	2	Both	
5.4 apart from parents with whom else you discussed on HIV AIDS in the last six month	0	sister	
	1	brother	
	2	peers	
	3	Relatives (grandparent,	



		aunt, uncle...)	
	4	No one	
	5	Others (specify).....	

5.5 have you discussed on not having sex until marriage with parents in the last 6 month	0	yes	5.7
	1	No	
5.6 With whom you discussed	0	mother	
	1	Father	
	2	Both	
5.7 If you don't discussed what are the reasons (tick all answers you think)	0	Culturally unacceptable	
	1	shame	
	2	Lack of knowledge	
	3	Lack of communication skill	
	4	Parents are not good listeners	
5.8 apart from family with whom else you discussed on not having sex till marriage in last six month	5	Others	
	0	sister	
	1	brother	
	2	peers	
	3	No one	
	4	Relatives (grandparent, aunt, uncle...)	
5.9 have you ever discussed on condom with your parents in the last 6 months	5	others	
	0	Yes	
5.10 With whom you have discussed?	1	No	
	0	father	
	1	mother	
5.11 Apart from parents with whom else you discussed regarding condom in the last 6 months	2	both	
	0	sister	
	1	brother	
	2	peers	
	3	No one	
	4	Relatives (grandparent, aunt, uncle...)	
	5	others	

## VI Peer factor related questionnaire

description	code	choice	Skip to
6.1 Is there pressure from your friends for you to have sexual intercourse?	0	yes	
	1	no	
6.2 how many of your friends have had sexual intercourse?	0	Non-of them	
	1	Some of them	
	2	All	
	3	Don't know	

## VII. Sexual behavior and practice

description	code	choice	Skip to
7.1 have you ever had sexual intercourse?	0	yes	
	1	no	Part VIII
7.2 have you ever had sex in the last six months	0	Yes	
	1	No	
7.3 How old were you when you first had sexual intercourse?		(.....) years	
7.4 How many boy/girlfriends do you ever have in your life time		(-----)	

## VII. Sexual behavior and practice

description	code	choice	Skip to
7.5 have you ever had more than one boyfriend /girl friend at a time?	0	yes	
	1	no	
7.6 how many sexual partners do you have since last six months	(.....)		
7.7 have you ever used condom	0	Yes	
	1	No	
7.8 did you use condom at your recent sexual contact	0	Yes	
	1	No	
7.9 did you used condom at all your sexual intercourse	0	Yes	
	1	No	7.11
7.10 What was the reason?	0	Condom not available	
	1	Too expensive	
	2	Trust my partner	
	3	Ashamed to buy	
	4	Decrease satisfaction	
	5	My religion prohibits	
	6	Others	
7.11 have you ever had sex with commercial sex worker (for males only)	0	Yes	
	1	No	
7.12 how often do you use condom while having sex with commercial sex worker	0	Always	
	1	Sometimes	
	2	Never used	
7.13 did you use alcohol since the day you had your last sexual intercourse	0	Yes	
	1	No	

7.14 have you ever had sex with a person you are not familiar with/casual partner	0	yes	
	1	No	

### VIII. Perceived connectedness to family

Check the box the best describes your feeling

description	Response				
	Strongly disagree	Disagree	Not applicable/undecided	Agree	Strongly agree
	1	2	3	4	5
8.1 I feel close to my mother					
8.2 My mother is warm and loving towards me					
8.3 I am happy with a relationship with my mother					
8.4 I feel close to my father					
8.5 my father is warm and loving towards me					
8.6 I am happy with my relationship with my father					

**THANK YOU!**

**የምርምር ማበራረያ እና የስምምነት መግለጫቅጽ**

በጎንደር ከተማ አስተዳደር የከፍተኛ ሁለተኛ ደረጃ ተመራማሪ ላይ ለኤች አይቪ ኤድስ አጋላጭ ስነ-ወሲባዊ ተግባራትና መንስኤዎቹ ለማወቅ ለማድረግ ጥናት የተዘጋጀ የሚገኝ ማሳባሰቢያ ማበራረያ እና የስምምነት መግለጫ ቅጽ፡፡

**የድርጅቱ ስም** - የጎንደር ዩኒቨርሲቲ ፣ **የዋናው ተመራማሪ ስም** - አበበውዋሴ

**መግቢያ፣** ይህ የምርምር ማበራረያ በዋና ተመራማሪው የተዘጋጀ ሲሆን አላማውም አሁን አንች/አንተ እንድትሳተፉ የምንጠይቀው የምርምር ጥናት ምንነት ለማበራረት ነው፡፡ በዚህም የምርምር ኘሮጀክት ለመሳተፍ ከመወሰንህ/ሺ በፊት ይህንን የማበራረያ ቅጽ በጥንቃቄ በመንበብያልግባህ/ሽ ነገር ካለ ማጠቃለያ ትችላለህ/ያለሽ

**የኘሮጀክቱ አላማ** የዚህ ምርምር ወይም ጥናት ዋና አላማው በከፍተኛ ሁለተኛ ደረጃ ተመራማሪ የሚደረግ ለHIV/AIDS አጋላጭ ስነ-ወሲባዊ ተግባራት እና ዋና ዋና መንስኤዎችን በመለየት ሊደረስ የሚችለውን አዲስ በHIV/AIDS የመያዝ እድልን እና ማሳል የጤና ችግሮችን ለመቅረብ ነው፡፡

**የአሰራር ሂደት፡** በጥናቱ ለመሳተፍ ፈቃደኛ ከሆንክ/ሆንሽ ሚገኝ ሰብሳቢዎች በሚከተሉ/ሺ ማጠቃለያ ላይ ለተጠቀሱት ጥያቄዎች በራስ እጅ ጽሁፍ በትክክል እንድትመልስ/ሽ ፈቃደኝነትህ/ሽ ይጠየቃል፡፡

**ሊከሰቱ የሚችሉ ችግሮች እና ምቹነት ማደላት፡** በጥናቱ ላይ በመሳተፍህ/በመሳተፍሽ ምንም አይነት ተያያዥነት ያለው ጉዳት ሊያደርስበህ ሊደርስብሽ አይችልም፡፡ በዚህ ጥናት በመሳተፍህ/ሽ ምንም አልባት ትንሺ ጊዜ ሊያበክንብህ/ሽ ይችላል ያምቢሆን ግን 30 ደቂቃ ብቻ የሚወስድ ነው፡፡

**ጥቅሞች/ ማከካሻ፡** በዚህ ጥናት በመሳተፍህ/ሺ የተለየ ጥቅም ወይም ማከካሻ አታገኝም፡፡ ነገር ግን በጥናቱ ግኝት የራስህን ወይም የሌሎችን የጤና ሁኔታ ልታሻሽል/ልታሻሽይ ትችላለህ/ትችያለሽ፡፡ በዚህ ጥናት ላይ በመሳተፍህ/ሽ ምንጋና የበግምክፍ ያለ ነው፡፡

**ሚከፈልህ ስለማጠቃለያ፡** ከዚህ ጥናት የሚገኝ ሚገኝ በሙሉ በሚከፈልህ ይያዝል፡፡ ሚገኝው የሚያገለግለው ለጥናትና ለምርምር ብቻ ነው፡፡ ማጠቃለያው ላይ ማንነትህን/ሽን እንድትገልጽ/ጨየሚጠይቅ ጥያቄ አይኖርም፡፡ ለዚህ ጥናት የሚሰበሰበው ሚገኝ አንተን/ቺን የሚያሳክት ማንኛውም ሚህረት በሚሰጠው የሚቃረን ሆኖ ሚሰጠውም በስምሽ/ህ ሳይሆን በተለየ ኮድ የሚቃረን ሲሆን ከዋናው ተመራማሪ ወጭለ ማንም አይገለጽም፡፡ እንዲሁም ጥናቱ በሚከፈልበት ወቅት ጠቅላላ ያለ ሚገኝ እንጅ እንደግለሰብ አይገመገምም፡፡

**በጥናቱ ያለመሳተፍ/ራስን የማግለል መብት፡** በዚህ ጥናት ውስጥ መሳተፍ ሙሉ በሙሉ የራስህ/ሺ ፈቃድ ነው፡፡ ከማጠቃለያ ውስጥ የሚታረመው/ረው ጥያቄ ካለ አለመሙላት ትችላለህ/ያለሽ፡፡ በዚህ ጥናት አለመሳተፍ

ከፈለክ/ከፈለግሽ ያለ መሳተፍ ሙሉ መብት አለህ/ሽ እንዲሁም በማንኛውም ስህተት በጥናቱ ላይ ያለህን/ሽን ተሳትፎ ማቋረጥ ትችላለህ/ያለሽ፡፡

**የጥናቱ ተጠሪ፡** ማንኛውም ጥያቄ ካለህ/ሺ ከታች በተገለፀው አድራሻ የጥናቱ ዋና ተጠሪ ወይም አማካሪ ማነጋገር ትችላለህ/ያለሽ፡፡

**ዋና ተሟሚ፡** - አበበውዋሴ      **ሞከረ ስልክ፡** - +251925090600      **ኢ-ሜል፡** - [abebawasie@gmail.com](mailto:abebawasie@gmail.com)

**የአማካሪውስም - ዶ/ር. መዝገብ ይታያል**      **ኢ.ሜል፡** - [Mezgebuy@gmail.com](mailto:Mezgebuy@gmail.com)

### የጥናቱ ፈቃደኝነት መግለጫ ፎርም

በጥናቱ ለመሳተፍ ፈቃደኝነት ህ/ሽ አዎ ----- አይደለሁም ----- ማልስህ/ሺ አዎ ከሆነ በፊርማህ/ሺ በሚገባ ጥወደ ማቅጣት ይገባል፡፡

የምስጢር ማልስ ለጥናት ብቻ የሚያገለግል መሆኑንና የሚቀጥል ማልስ ብቻ እንደ ምሳሌ በጥናቱ ተገልጿል በተጨማሪም በጥናቱ አልሳተፍም የሚሉት መብት እንዳልኝ ወይም ያልፈለኩትን ጥያቄ አለመመለስ እንደምቸል ተገልጿል፡፡ ከላይ በተገለጠሚያ ማረጋገጥ በጥናቱ ለመሳተፍ ፈቃደኝ መሆኔን አረጋግጣለሁ፡፡

**ፊርማ** ..... **ቀን** ..... **የማስይቁ ኮድ** .....

### ማስይቅ

### ክፍል አንድ፡ ማረጋገጫ ማህበራዊ ጥያቄዎች

**ትዕዛዝ፡** - ለተጠቀሰው ጥያቄ ከቀረቡት የሚልስ አማራጮች አንዱ ላይ ይህንን ☒ ምልክት ያድርጉ / እንደ ጥያቄዉ ይዘት ማልስህን/ሽን በጽሁፍ አስቀምጥ/ጭ፡፡

ተ.ቁ	ጥያቄ	ኮድ	ማልስ	እለፍ
1.1	እድሜ		(.....) በሙሉ አመት	
1.2	ፆታ	1	ወንድ	
		2	ሴት	
1.3	የጋብቻ ሁኔታ	0	ያገባ/ች	
		1	ያላገባ/ች	
		2	የፈታ/ች	
		3	ሌላ (ይገለጽ)	
1.4	የክፍል ደረጃ	0	9ኛ	
		1	10ኛ	
1.5	የምትማርበት ት/ቤት አይነት	0	የግል	
		1	የመንግስት	
1.6	ሐይማኖት	0	አርቶዶክስ	
		1	መስሊም	
		2	ኖሮቴስታንት	
		3	ሌሎች	
1.7	ሐይማኖታዊ ተቋማት ምን ያህል ጊዜ ትሔደህ/ሽ	0	በየቀኑ	
		1	ቢያንስ በሳምንት አንድ ጊዜ	
		2	ቢያንስ በወር አንድ ጊዜ	
		3	ቢያንስ በአመት አንድ ጊዜ	

		4	በአመት ከአንድ ቀን ያነሰ	
		5	ሄጀ አላወቅም	
1.8	ብሔረሰብ/ሽ	0	አመራ	
		1	ትግሬ	
		2	ሌሎች	
1.9	የወላጆች ቋሚመኖሪያ ቦታ	0	ከተማ	
		1	ገጠር	
110	አብረህ የምትኖረው/ረውሰው	0	እናት እና አባት	
		1	እናት ብቻ	
		2	አባት ብቻ	
		3	ሌላ የቤተሰብ አባል (እህት፣ ወንድም፣ አያት፣ አጎት፣ አክስት....)	
		4	ጓደኛ	
		5	ብቻየን	
		6	ሌላ	

ተ.ቁ	ጥያቄ	ኮድ	መላስ	እለፍ
1.11	የቤተሰብ/ሽ አማካይ ወርሃዊ የገቢ መጠን በግምት		(-----) የኢትዮጵያ ብር	
1.12	የእናት/ሽ የትምህርት ደረጃ	0	ያልተማረች	
		1	ማንበብ እና መጻፍ ብቻ	
		2	የመጀመሪያ ደረጃ አጠናቃለች	
		3	ሁለተኛ ደረጃ ያጠናቀቀች	
		4	ከሁለተኛ ደረጃ በላይ	
1.13	የአባት/ሽ የትምህርት ደረጃ	0	ያልተማረ	
		1	ማንበብና መጻፍ ብቻ የመቼል	
		2	አንደኛ ደረጃ ያጠናቀቀ	
		3	ሁለተኛ ደረጃ ያጠናቀቀ	
		4	ከሁለተኛ ደረጃ በላይ	

**ክፍል ሁለት፡ግለሰባዊ ባህርያት እና ማለቸኛዎች ትዕዛዝ፡** - በተጠቀሰውጥያቄ ከቀረቡት የሚሰሩ አሜሪካኒዎች ላይ ይህንን ☒ ምልክት ያድርጉ. በሚሰሩት ሚኒስትሮች ቁጥር ካለ ወደተጠቀሰውጥያቄ ቁጥር ይለፉ፡፡

ተ.ቁ	ጥያቄ	ኮድ	ሚኒስ	እለፍ
2.1	አልኮል ተጠቅሟል/ሽታወቃለሁ/ሽ(ጠጅ፣ ጠላ፣ አረቂ እና ቢራን ያካትታል) (ሚኒስትሩ/ሽ ተጠቅሟል/ሽ ወይ 2.3 ይለፋል)	0	አዎ	
		1	ተጠቅሟል/ሽ አልተጠቅሙም	2.3
2.2	ባለፈው አንድ ወር ምን ያህል ጊዜ አልኮል ተጠቅሟል/ሽ?	0	ሁልጊዜ	
		1	ቢያንስ በሳምንት አንድ ቀን	
		2	በሳምንት ከአንድ ቀን በታች	
		3	ተጠቅሟል/ሽ አልተጠቅሙም	
2.3	ወሲባዊ ፊልም አይተህ/ሽ ታወቃለህ/ሽ (ሚኒስትሩ/ሽ አይችል/ሽም ወይ 2.5 ይለፋል)	0	አዎ	
		1	አይችል/ሽም አልተጠቅሙም	2.5
2.4	ባለፈው አንድ ወር ወሲባዊ ፊልም ምን ያህል ጊዜ አይተህ/ሽ?	0	በየቀኑ	
		1	በሳምንት ከአንድ ቀን በላይ	
		2	በሳምንት ከአንድ ቀን በታች	
		3	አልተጠቀምም	

2.5	ጭነት ተጠቅሟል/ሽ ታወቃለህ/ሽ ታወቁ አለሽ (ሚኒስትሩ/ሽ ተጠቅሟል/ሽ ወይ 2.7 ይለፋል)	0	አዎ	
		1	ተጠቅሟል/ሽ አልተጠቅሙም	2.7
2.6	ባለፈው አንድ ወር ምን ያህል ጊዜ ጭነት ተጠቅሟል/ሽ?	0	በየቀኑ	
		1	ቢያንስ በሳምንት አንድ ጊዜ	
		2	በሳምንት ከአንድ ቀን ያነሰ	
		3	አልተጠቀምም	
2.7	የ 2015 የሚኒስትሩ ሴክተር ውጤት/ሽ ምን ያህል ነው?	0	<50	
		1	50-59	
		2	60-69	
		3	70-79	
		4	80-89	
		5	90-100	

#### ክፍል ሦስት፡ በ HIV/AIDS ዙሪያ ያለን እውቀት በተመለከተ

ተ.ቁ	ጥያቄ	ኮድ	ሚኒስ	እለፍ
3.1	ኤች አይቪ ኤድስ ያለበትን ሰው የአካል ገጽታ በማየት መለየት ይቻላል	0	አዎ	
		1	አልተቻለም	
3.2	የትንሹ ጥንቃቄ ኤች አይቪ/ኤድስን ያስተላልፋል	0	አዎ	
		1	አያስተላልፍም	
3.3	ኤች አይቪ ኤድስ ስለታመነ ነገሮችን በመዋሰን ይተላለፋል	0	አይተላለፍም	
		1	አዎ	
3.4	ኤች አይቪ ከእናት ወደ ልጅ ይተላለፋል	0	አይተላለፍም	
		1	አዎ	
3.5	ማቃቀብ ኤች አይቪ ኤድስ ይከላከላል	0	አይከላከልም	
		1	አዎ	
3.6	ቫይረሱ የሌለበት አንድ ታማኝ የፍቅር ጓደኛ	0	አይከላከልም	



	ኤድስን ለማሳከል ይረዳል	1	አዎ	
3.7	በሁሉም የግብረሰጋ ግንኙነት ኮንዶም መጠቀም ኤድስን ይከላከላል	0	አይከላከልም	
		1	አዎ	
3.8	ከሴተኛ አዳሪዎች ጋር ግብረሰጋ ግንኙነት አለመድረግ ኤድስን ይከላከላል	0	አይከላከልም	
		1	አዎ	

#### ክፍል አራት፡ የቤተሰብ አባላትን በተመለከተ

ተ.ቁ	ጥያቄ	ኮድ	መልስ	እለፍ
4.1	ከት/ቤት ወይም ከቤት ርቀህ/ሺስትገኝ ቤተሰብህ/ሽየት እንደሆንክ/ሽያወቃሉ?	0	አያውቁም	
		1	አዎ	
4.2	ከቤት ወይም ከት/ቤት ርቀህ ስትገኝ ቤተሰብህ/ሽየት ከማን ጋር እንደሆንሽ/ከያወቃሉ?	0	አያውቁም	
		1	አዎ	
4.3	ቤተሰቦችህ ከሴት ጋር እንዳትቀራረብ ወይም እንዳትጫወት ይከለክላሃል (ለወንዶች ብቻ)	0	አዎ	
		1	አይከለክሉኝም	
4.4	ቤተሰቦችሺ ከወንድ ጋር እንዳትቀራረቢ ወይም እንዳትጫወት ይከለክላሻል (ለሴቶች ብቻ)	0	አዎ	
		1	አይከለክሉኝም	

#### ክፍል አምስት ስለወሲባዊ ጉዳዮች ከቤተሰብ ጋር ስለመድረግ ወይም በተመለከተ

**ትዕዛዝ፡** - በተሰጡት አሜራጮች ውስጥ መልስ ያሉት ላይ ይህንን ☒ ምልክት ያድርጉ በመላሱት መልስ ትይዩ ቁጥር ካለ ወደ ተጠቀሰው ጥያቄ ቁጥር ይለፍ

ተ.ቁ	ጥያቄ	ኮድ	መልስ	እለፍ
5.1	ባለፉት ስድስት ወራት ውስጥ ከወላጆችህ/ሽ ጋር ስለኤች አይሺ ተወያይተህ/ተሽ ታወቃለህ/ሽ (መልስህ/ሽ ተወያይቶ አላወቅም ከሆነ)	0	አዎ	5.3
		1	ተወያይቶ አላወቅም	

	<b>ወደ 5.3 ይለፉ)</b>			
5.2	ከተወያየህ ከማን ጋር ተወያየህ	0	ከአባት	
		1	ከእናት	
		2	ከሁሉም ጋር	
5.3	ካልተወያየህ ምክንያቱ ምን ነበር?	0	በባህል ተቀባይነት የለውም	
		1	አሳፍሪ ነው	
		2	የእውቀት ማከላከያ	
		3	የወላጆች የወይይት ክህሎት ማከላከያ	
		4	ወላጆች በትኩረት አያዳምጥኝም	
		5	ሌሎች	
5.4	ባለፉት ስድስት ወራት ከወላጆችህ/ሽ ወጭ ስለ ኤች አይ ሺ ከማን ጋር ተወያይተሃል/ሻል	0	ከእህት	
		1	ከወንድም ጋር	
		2	ከዳደሩ ጋር	
		3	ዘመድ (አያት፣ አክስት፣ አጎት....)	
		4	አልተወያየሁም	
		96	ሌሎች (ይገለጽ)	
5.5	ባለፈው ስድስት ወር ውስጥ ስለሚታቀብ ከወላጆችህ/ሽ ጋር ተወያይተህ/ሺ ተወቃለህ/ሺ (ማለትህ/ሽ ተወያይቶ አላወቅምከሆነ ወደ 5.7 ይለፉ)	0	አዎ	
		1	ተወያይቶ አላወቅም	5.7
5.6	ከተወያየህ ከማን ጋር ነው	0	እናት	
		1	አባት	
		2	ከሁለቱም	
5.7	ካልተወያየህ/ሺ ምክንያቱ ምን ነበር	0	የባህል ተቀባይነት ስለሌለው	
		1	አሳፍሪ ስለሆነ	
		2	የእውቀት ማከላከያ	
		3	የወይይት ክህሎት ማከላከያ	
		4	ወላጆች በትኩረት አያዳምጥኝም	
		5	ሌሎች/ይገለጹ/	
5.8	ከወላጅ ወጭ ስለሚታቀብ ከማን ጋር ተወያይተሃል	0	ከእህት	
		1	ከወንድም	
		2	ከዳደሩ	
		3	ዘመድ (አያት፣ አክስት፣ አጎት....)	
		4	ከማንም አልተወያየሁም	
		5	ሌላ (ይገለጽ) ....	

ተ.ቁ	ጥያቄ	ኮድ	ማለስ	እለፍ
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5.9	ባለፉት 6 ወራት ስለ ኮንዶም ከወላጆችህ/ችሽ ጋር ተወያይተህ/ሺ/ ታወቃለህ/ሺ (ሚስትህ/ሽ ተወያይቶ አላወቅም ከሆነ ወደ 5.11 ይለፉ)	0	አዎ	
		1	ተወያይቶ አላወቅም	5.11
5.10	ከማን ጋር ነው የተወያየሽው	0	ከአባቴ ጋር	
		1	ከእናቴ ጋር	
		2	ከሁለቱም	
5.11	ከወላጆችህ/ችሽ ውጭ ስለ ኮንዶም ከማን ጋር ተወያይተሃል/ሻል	0	ከእህት	
		1	ከወንድም	
		2	ከጓደኛ	
		3	ከዘመድ(አያት፣ አክስት፣ አጎች.....)	
		4	ከማንም አልተወያየሁም	
		5	ሌላ (ይገለጽ) ....	

**ክፍል ስድስት ፡ የአቻግፊትን በተመለከተ፡ ትዕዛዝ፡ -**

ተ.ቁ	ጥያቄ	ኮድ	ሚስ	እለፍ
6.1	የግብረሰጋ ግንኙነት እንድንታደርግ/የጓደኛ ግፊት ነበረብህ/ሺ	0	አዎ	
		1	የለም	
6.2	ምን ያህሉ የቅርብ ጓደኛችህ/ችሺ ግብረሰጋ ግንኙነት ጀምረዋል	0	ሁሉም አልጀመሩም	
		1	የተወሰኑት	
		2	ሁላቸውም ጀምረዋል	
		3	አላወቅም	

**ክፍል ሰባት፡ ስለ ግል ወሲባዊ ተግባራት በተመለከተ**

**ትዕዛዝ፡** - በተሰጡት አመራጮች ውስጥ መልስ ያሉት ላይ ይህንን ☒ ምልክት ያድርጉ በመላሱት መልስ ትይዩ ቁጥር ካለ ወደ ተጠቀሰውቁጥር ይለፍ

ተ. ቁ	ጥያቄ	ኮ ድ	መልስ	እለፍ
7.1	ግብረ ስጋ ግንኙነት አድርገህ/ሺ ታወቃለህ/ሽ(መልስህ/ሽ አድርጌ አላወቅምከሆነ ወደ ክፍል ስምንት ይለፉ)	0	አዎ	
		1	አድርጌ አላወቅም	ወደ ክፍ ስምንት እለፍ /ፊ
7.2	ባለፈው ስድስት ወር ውስጥ ግብረ ስጋ ግንኙነት ፈፀማል/ሻል	0	አዎ	
		1	አልፈጸምኩም	
7.3	የመጀመሪያ ግብረ ስጋ ግንኙነት ስታደርግ/ጊ/ዕድሜህ/ሺ/ ስንት ነበር?		(.....) አመቱ ነበር	
7.4	እስካሁን ድረስ ስንት የወሲብ ጓደኛ ኖሮህ/ሽ ያወቃል		(-----)	
7.5	በተመሳሳይ ጊዜ ከአንድ በላይ የወሲብ ጓደኛ ኑሮህ/ሺ/ ያወቃል?	0	አዎ	
		1	ኖሮኝ አያወቅም	
7.6	ባለፈው ስድስት ወር ውስጥ ስንት የወሲብ ጓደኛ ነበረህ/ሽ	0	(.....) በቁጥር	
7.7	ኮንዶም ተጠቅመህ/ሽ/ ታወቃለህ/ሽ/ ታወቃለህ/ሽ	0	አዎ	
		1	ተጠቅሜአላወቅም	
7.8	የሜጪሻባደረከው/ሺው/የወሲብ ግንኙነት ኮንዶም ተጠቅመክል/ሻል	0	አዎ	
		1	አልተጠቀምኩም	
7.9	በሁሉም ወሲባዊ ግንኙነት ኮንዶም ተጠቅመህ/ሻል (መልስህ/ሽ አዎ ከሆነ ወደ 7.10 ይለፉ)	0	አዎ	
		1	አልተጠቀምኩም	7.11
7.10	ምክንያቱ ምን ነበር	0	ኮንዶም አልነበረም	
		1	በጣም ወድኑ ነበር	
		2	ጓደኛዬን ስለመገናኛት / ስለመገናኛው	
		3	ለመግዛት አፍራለሁ	
		4	ስሜቴ ይቀንሳል	
		5	ሐይማኖቴ ስለመብላክል	

		6	ሌሎች /ይገለጹ/	
7.1	(ለዎንዶች ብቻ) ከሴተኛ አዳሪ ጋር ግብረ ስጋ ግንኙነት አድርገህ ታወቃለህ ማለትም አድርጌ አላወቅም ከሆነ ወደ ቁጥር 7.12 ይለፉ	0	አዎ	
1		1	አድርጌ አላወቅም	7.12
7.1	ከሴተኛ አዳሪ ጋር ባደረገው ግብረ ስጋ ግንኙነት ከንደም ምን ያህል ጊዜ ተጠቅሟል	0	ሁል ጊዜ	
2		1	አልፎ አልፎ	
		2	ተጠቅሜአላወቅም	
7.1	የሜጪሻ ግብረ ስጋ ግንኙነት ባደረግኩት ሺቦት ቀን አልኮል ተጠቅሟል/ሺነበር	0	አዎ	
3		1	አልተጠቀምኩም	
7.1	ብዙ ከማታወቀው/ቂው/ቋሚ ካልሆነ የወሲብ አጋር ጋር የወሲብ ግንኙነት ፈጽሞ/ሽ ታወቃለህ/ሽ	0	አዎ	
4		1	ፈጽሜአላወቅም	

**ክፍል ስምንት፡ ከቤተሰብ ጋር ያለህን/ሽን ቅርርብ በተማከተ**

**ትዕዛዝ፡ - የቤተሰብህን/ሽን ግንኙነት ይገልጻል ባልከውሽውሳጥን ላይ ከአንዱ ብቻ ይህን ☒ ምልክት አድርግ / 2**

ጥያቄ		ማለስ				
ተ. ቁ		በጣም እስማማለሁ	እስማማለሁ	አይመከተኝም እርግጠኛ አይለሁም	አልስማማም	በጣም አልስማማም
8.1	ከእናቴ ጋር ቅርርብ አለኝ ብዬ አስባለሁ					
8.2	እናቴ ትወደኛለች					
8.3	ከእናቴ ጋር ባለኛ ግንኙነት ይስተኛኝ					
8.4	ከአባቴ ጋር ቅርብ አለኝ ብዬ አስባለሁ					
8.5	አባቴ ይወደኛል					
8.6	ከአባቴ ጋር ባለኝ ግንኙነት ይስተኛኝ					

**በጥናቱ በመስተፍህ/ሺ ምስጋናዬ ላቅ ያለኝ ነው!**

### **Annex III: Parental consent form**

**Research title:** Risky sexual behavior to HIV infection and associated factors among high school students in Gondar city administration, northwest Ethiopia, 2015

**Principal investigator:** Abebaw Wasie (BSC)

**Advisors:** Dr. Mezgebu Yitayal (PhD) and Mr. Bekri Mohammed (BSC, MSC)

**Introduction:** The purpose of this form is to provide you (as the parent of a prospective research study participant) information that may affect your decision as to whether or not to let your child participate in this research study. The person performing the research will describe the study to you and answer all your questions. Read the information below and ask any questions you might have before deciding whether or not to give your permission for your child to take part. If you decide to let your child be involved in this study, this form will be used to record your permission.

**Purpose of the study:** If you agree, your child will be asked to participate in a research study on Risky sexual behavior and associated factors among high school students in

Gondar city administration, northwest Ethiopia, he/she will be asked about sexual behavior which put an individual at increased risk of contracting HIV, general knowledge assessing questions about HIV/AIDS, personal, familial as well as peer characteristics related to sexual behavior and there will be 686 study participants like your child , the study aims to identify risky sexual behavior to HIV infection and associated factors among school youth which will help to design age and need specific Sexual and reproductive health interventions across different spots including schools.

**Risks/discomforts:** there is no any anticipated harm which will happen to your child due to his/her participation, unless you feel discomfort owing to wasted time as survey will be conducted at regular school time but it is not as such long which will take about 30 minutes and your child participation is completely voluntarily. Your child may decline to participate or to withdraw from participation at any time. Withdrawal or refusing to participate will not affect their relationship with school in anyway. You can agree to allow your child to be in the study now and change your mind later without any penalty. In addition to your permission, your child must agree to participate in the study. If your child does not want to participate they will not be included in the study and there will be no penalty. If your child initially agrees to be in the study they can change their mind later without any penalty.

**Benefit or incentive:** neither you nor your child will get direct benefit but he/she can improve his/her own and his/her relative's health at some point in time by the findings of this research

**Confidentiality:** Your child's privacy and the confidentiality of his/her data will be protected since the questionnaire does not require any personal identifiers like name, information is needed only for research purpose.

**Person to contact:** if you have any question, you can contact

**Principal investigator: Abebaw Wasie**

**Cell phone:** +251925090600

**E-mail:** [abebawasie@gmail.com](mailto:abebawasie@gmail.com)

**Advisor: Dr. Mezgebu Yitayal**

**E-mail: [mezgebuy@gmail.com](mailto:mezgebuy@gmail.com)**

**Signature**

You are making a decision about allowing your child to participate in this study. Your signature below indicates that you have read the information provided above and have decided to allow them to participate in the study.

**Date** \_\_\_\_\_

**Signature of Parent(s) or Legal Guardian** -----

**Thank you!**

**ህፃናት ለመጎተፋበት ምርምር የወላጆችን ፈቃድ ማጠየቂያ ቅጽ**

**የምርምሩ ርዕስ፡** - ለኤች አይቪ ኤድስ አጋላጭ ስነ-ወሲባዊ ባህሪያትና መስከረምቻቸው በተመለከተ ፡ በጎንደር ከተማ አስተዳደር በሚገኙ ከፍተኛ ሁለተኛ ደረጃ ተመሪዎች የሚጠና ፡ ፡

**ዋና ተመራማሪ አበበውዋሴ**

**አማካሪ ዶ/ር ሙዝገባ ቡይታያል**

**አቶ በክሪ ማክሙድ**

**ማህበረሰብ፡** የዚህ ቅጽ አላማ እንደ ወላጅነት ልጅ በጥናቱ እንዲሳተፍ/እንድትሳተፍ አልያም በጥናቱ እንዳይሳተፍ/ትሳተፍ ለማለት የሚያስችልዎን የጥናቱን ዝርዝር ሁኔታ ለማስወቅ ነው ፡ ከዚህ በታች የተዘረዘረውን ዝርዝር ሁኔታ በመሉ እንዲያነቡት እና ልጅዎን እንዲሳተፍ/እንድትሳተፍ ከመቀደም በፊት ጥያቄ ካለዎት እንዲጠይቁ በአክብሮት እንጠይቅዎታለን ፡ ፡ ልጅዎ በጥናቱ እንዲሳተፍ/እንድትሳተፍ ከፈቀዱ ይህንን ቅጽ ፈቃድዎን ለሚጋገጥ እንጠቀማቸዋለን ፡ ፡



**የጥናቱ ዝርዝር ተግባራት:** ከላይ በተጠቀሰው ጥናት ልጅዎ እንዲሳተፍ/እንድትሳተፍ ከፈቀዱ እርሷ/እርሱ ስለ አፖላጭስን -ወሲባዊ ባህሪያት፣ ስለ ኤች አይ ቪ ኤድስ ሰላለቸው ጠቅላላ እውቀት ግለሰባዊ አፖላጭስን -ወሲባዊ ባህሪያት፣ ቤተሰባዊ ቁጥጥር፣ ቅርፊት እና ወይይት፣ የአቻ ግፊት እና ባህሪዎች ከአፖላጭስን -ወሲባ ባህሪያት ባላቸው ግንኙነት አንፃር ይጠየቃሉ፡፡ በጥናቱ እንደ እርስዎ ልጅ የመሳሉ 686 ተሟዎች ይሳተፋሉ፡፡

የጥናቱ ዋና አላማ አፖላጭስን -ወሲባ ባህሪያት ተሟዎች ምን ያህል እንደሆነ መሰብሰብ እና መንስኤዎችን መለየት ይሆናል፡፡

**ጉዳዮች/ምቹት መገባት:** ለእርስዎ ወይም ለልጅዎ በጥናቱ በመሳተፍ/ፈቃድ የሚደረግ ጉዳት የለም ምናልባት ጥናቱ የሚካሄደው በመደበኛው የት/ት ሰዓት ስለሆነ የሚከሰት ውጊዜ ሊያሳስብዎት ይችላል ያምሆኖ ግን 30 ደቂቃ ብቻ የሚወስድ በመሆኑ ብዙ ላይጎዱ ይችላሉ፡፡ ልጅዎም በጥናቱ በጭራሽ አለመሳተፍ ወይም ከጀመረ/ች በኋላ በማንኛውም ሰዓት ማቋረጥ ይችላል/ችላላች፡፡

ከእርስዎ በተጨማሪ የልጅዎ ፈቃድም ይጠየቃል፡፡ ስለዚህ የእርስዎ ልጅ መሳተፍ ካልፈለገ/ካልፈለች ያለምንም ችግር ከጥናቱ ያለመሳተፍ መብቱ የተጠበቀ ነው፡፡

### **ጥቅማጥቅም መሳካት**

በጥናቱ በመሳተፍ/ፈቃድ እርስዎም ሆነ ልጅዎ ምንም አይነት ቀጥተኛ የሆነ ጥቅም አያገኙም ነገር ግን በጥናቱ በሚኖረው ወጣት በተወሰነ ጊዜ ውስጥ የእርሱን/ሷን ወይም የመሳሎችን/ችን ጤና ሊያሻሽል ይችላል፡፡

### **ሚኒጥር ስለመጠበቅ**

ልጅዎ የሚጠቅሙት ሚኒስ እና ሚኒ ጃ በመሉ በሚኒጥር ይያዛል፡፡ በመጠየቁ ላይ ምንም አይነት የግለሰብ መንነትን የሚያልጽ ስምን ጨምሮ ባለሙሉ የተሳታፊው መንነት በመንም ሰው አይታወቅም፡፡ የሚጠቅሙት ሚኒስ ለምርምር አላማ ብቻ ይውላል

**የጥናቱ ተጠሪ:** ጥናቱን በተመለከተ ያለዎትን ማንኛውም አይነት ጥያቄ ካለ ከታች ባለው አድራሻ መጠየቅ ይችላሉ

**ዋና ተሟራሚ :** - አበበውዋሴ

**ሞባይል ስልክ :** - +251925090600

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አቶ በክሪ ሞሐመድ

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**ፈቃድ ሚኒስትር ጽሑፍ**

ከስር የሚያስቀምጡት ፊርማዎ የሚያሳየው ካላይ የተገለፀውን ሚኒስትር በሙሉ እንዳይገባቸው እና ልጅዎ በጥናቱ እንዲሳተፉ/ትሳተፍ መቼቸውን ነው፡

ቀን -----

የወላጅ ወይም የአሳዳጊ ፊርማ-----

**እና ማሳሰቢያ!!**

#### **Annex IV: Declaration**

I, the under signed MPH/RH student declare that the thesis is my original work in partial fulfillment of the requirement for the degree of Master of Public Health in Reproductive Health.

**Name: Abebaw Wasie**

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**Place of submission:** Institute of Public Health, College of Medicine and Health Sciences, University of Gondar.

**Date of submission:** \_\_\_\_\_

This thesis work has been submitted with our approval as university advisors.

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